

Advanced Management

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Progress Through Enlightened Management

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Advanced Management

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THE WORLD is in a crisis — facing the conflicting political ideologies which beset the leaders of nations. Management too, is in a crisis — facing the conflict of legally questionable business practices which beset the leaders of management today.

It is significant that the turn of the century ushered in both the legislative curbs on monopolistic practices and the beginnings of professionalism in management. It was just 50 years ago that Frederick W. Taylor instituted regular meetings with his colleagues to develop a working philosophy of management. The half century has seen many things written concerning the art and science of management as well as a great deal of judicial history made in overcoming some objectionable practices.

Today, more pointedly than the legislative inquiry and the judicial review of managerial practices is the publicity given to, and the public image created by, malpractices in the highest places of business and labor. These practices include the conflict of interest involving managers, charges of monopolistic dealings, feather-bedding and price-fixing, scandals in union control and finances, stock market manipulation, tax evasions and references, questionable tax-law loop-holes, expense account living, and foreign tax havens.

It is here that professional managers in our free enterprise system are facing incontrovertible criticism of their activities, activities sometimes mistakenly or short-sightedly purported to be necessary evils under our economic system. Unfortunately, the widespread publicity given to a few cases has smeared all levels of management. These smears make it all the more important that management accept today's challenge and incorporate the ethics and intelligence into managerial practices which will assure the high plane of personal conduct and will enable us to sell our free enterprise system at home and abroad without embarrassment.

This is the moral obligation on the conscience of management leadership. When it has been met, and added to the management capabilities already attained, the United States can move further ahead politically and economically. Hesitation in accepting this moral challenge due to a lack of integrity can only serve as fuel for the cynics supporting an opposing economic and political society.

ROBERT B. CURRY,
S.A.M. Executive Vice President

The Conscience of Management in Our Time

A
M

Editorial

Management and labor differ about how productive American labor is, but they agree that the productivity of labor is central to the issues of wages, prices, inflation, and rate of economic growth. In this, although no one knows for sure what labor productivity means, they are probably right.

Manager and the Productivity

by Robert Zager

WHEN a worker begins his employment with a company, of course, he brings a particular set of work-skills and work-attitudes conditioned by his past experience. These are "givens" but they are not fixed. They may improve; they may become less favorable; they may remain essentially as before. The direction and degree of change depend mainly

I.

upon management's skills and attitudes as embodied in day-to-day practices.

There can be little dispute that management practices set at least the upward limits of productivity. No matter how skillful, eager, and co-operative workers may be, they cannot perform better than management's machines, materials, systems, plans, and organization permit.

Most managers would gladly settle for something less than the upward limits of productivity. What troubles them is the fact that so many workers seem bent on getting by with minimum productivity and on pulling down the performance of their fellows. Production limitations, featherbedding, obstructionism, indifference, time-killing, absenteeism: these are the sore spots. Can such anti-management behavior patterns reflect management skills and attitudes?

Two-Way Street

Strangely enough, they do. Even on the superficial level, employees who resist and obstruct are, consciously or unconsciously, doing unto management as they perceive management does unto them. Their perception may not match management's intent but usually, even if only in *Alice-in-Wonderland* fashion, it does correspond to the outward signs. For instance, where managers complain, "Our men waste materials," workers are likely to say, "You ought to see all the scrap the bosses give away." Where managers complain of featherbedding, workers may point to flagrant overstaffing in management ranks. Where managers complain of workers' indifference, workers and foremen will say, "Management doesn't know we're alive."



Management

and the

Pity of Labor

The interdependence of worker and management attitudes goes much deeper, however. Our whole system of industrial relations rests on a time-worn, pseudo-realistic, cynical assumption that industrial workers are a naturally inferior race. Few managers are aware of making the assumption. Fewer actually feel that way about workers as individuals. Their feeling pertains only to workers *as workers*, just as Samuel Johnson condemned Scotsmen but enjoyed the constant companionship of his Scottish friend Boswell.

The assumption manifests itself in a set of axioms that govern managers' opinions about workers. The principal are these:

- Workers don't give a damn about the business that employs them—all they want is to get as much as possible for doing as little as possible.
- Workers are irresponsible—if you don't constantly check up on them, they'll take the easiest way out.
- Workers can't plan or organize work—they can't see beyond their own pocketbooks.
- Workers resist change—once they get used to doing things a certain way, the only way you can get them to change is by a promise, a threat, a trick, or a direct order.

The same axioms seem to dominate all industrial societies, regardless of official ideology. Indeed, workers often speak as if they believed these folktales themselves. It should be noted, however, that workers hold an equally cynical set of beliefs about their bosses.

Both sides also seem to agree that the level of productivity is exclusively or at least predominantly controlled by workers, subject only to the capital equipment that management furnishes. In this they are probably wrong. A growing body of evidence indicates that management, not labor, plays the determinative role.

Mature Treatment

The pity of it is that such axioms are self-enacting. As Liza Doolittle says in Shaw's *Pygmalion*, "The difference between a lady and a flower girl is not how she behaves but how she's treated." Workers behave as if they don't give a damn about the business, as if they're irresponsible, incapable of planning, and resistant to change: *because managers treat them that way*. The jobs we ask workers to do demand none of the qualities that mark humans as mature and responsible. How could we more clearly convey our opinion of them? In the planning and execution of anti-management strategies, they can at least find challenges to their intelligence, inventiveness, and organizing ability.

The validity of the Liza Doolittle Theory is attested by case after case in the records of those who have experimented in the field. Let me cite three with which I happen to be personally familiar:

1. A northeastern hardgoods factory where, in the midst of severe labor difficulties, 584 workers—asked by their supervisors to suggest departmental improvements—responded with over 1,200 pertinent ideas.
2. A southern textile mill where production workers and their supervisors jointly worked out methods of reducing the output of second-quality goods, and achieved annual savings of \$300,000.
3. A metropolitan newspaper composing room where a questionnaire asking how to improve department operations brought such anonymous replies as these from workers: "Enforce discipline and order."



Mr. Zager—presently a management consultant associated with Pritchard, Schaffer & Woodyatt of Stamford, Conn.—has served as chairman of the City of Passaic planning commission and is an attorney at law. Degrees: A.B., 1940, Harvard; LL.B., 1947, Yale Law School. He has published articles in journals akin to AM.

"Subject every newcomer to a strict competency test the first day he presents himself for work. This will eliminate the incompetence, restore self-respect and morale among regular workers and renew the confidence of the public in the high standards of (the newspaper)." "Enforce production standards. An increasing number of men kid their conscientious co-workers for 'plugging' so hard." "Have proofs returned to the operator who set the type, then he'd see the ridiculous errors he makes."

These examples could be multiplied many times.

Experimenters are always amazed to find that workers in every case respond with interest, ingenuity, and effort, even when they have absolutely no prospect of direct personal gain from doing so. Hope of long-run gains and greater job security? Probably. Even more, the desire to do a praiseworthy job for a praiseworthy department of a praiseworthy company. But aren't those the same motivations we look for in any desirable manager?

Key Role of the Department

The importance of this common thread stands forth when we examine it from a different angle. It is that worker productivity is a departmental rather than an individual matter from the business point of view as well as the motivational.



The only pay-off that matters to a department is the departmental pay-off. Individual performance counts for little unless it shows up in the department's results. For example, operators may be producing at very high speeds, drawing maximum incentive pay, and yet their department as a unit may show unsatisfactory results because it is poorly integrated. This simple fact is obscured by popular stereotypes of industrial work.

Most of the public arguments have raged around, not productivity, but *un*productivity, the deliberate withholding of effort and attention that was so gruesomely caricatured in the motion picture, *I'm All Right, Jack*. We therefore visualize the productive worker as the simple inverse of the unproductive; i.e., as the Stakhanovite who stays at his machine, skillfully drives it to its limit and exceeds production norms. He is Man-the-almost-perfect-machine, the engineered man, the skilled "hand".

But Stakhanovism, aside from being anti-human, begs the question. It assumes that the department in which the worker works has been so perfectly designed to perform its mission that if every worker did as the engineers told him the best possible results would follow. The department would manage itself, as Lenin predicted that ultimately clerks would administer the state.

A Fundamental Fallacy

Both concepts stem from the great fallacy of Frederick W. Taylor. Taylor, pursuing to its limit the rationalization of shop labor, justly observed that "productive" and managerial work are different in kind and require different skills. From this, however, he concluded that the two involve different subject-matters and must be performed by different people. Henry Ford's genius turned the fallacy into gospel. Only recently, as industrial engineering competence has gained world-wide currency, has the Taylor-Ford error begun to force itself on our attention.

II.

The elementary unit of production is neither the machine nor the worker, but the department. The department represents the first stage in the process of *integrating* work toward the unified goal-system that gives life to an enterprise. In a real sense, the jobs that individuals perform have significance only as fragments of this larger unit, and the significance of a department springs from the company as a whole. In consequence, the greatest gains in productivity come, not from individuals working harder or "smarter"—desirable as those ends may be—but from integrating their work more effectively.

For instance, worker A may develop a system that enables him to run his machine at much higher speeds, but with such an increase in waste and maintenance costs that the department suffers a net loss. Another system, conceived in departmental terms, may increase the rate of production without increasing machine speeds or waste or maintenance costs, by improving the flow of materials and reducing the amount of time that machines stand idle.

Constituents of Integrating Work

What does this mysterious process of integrating, or man-

aging, involve? For answer, let us look at the department itself. We tend to think in shorthand about the mission of a department, as if it were simply to create some product or service in maximum quantity at minimum cost. The actual mission is far more complex; namely, to create desired quantities and kinds of product or service, meeting desired standards of quality and cost, at desired times, and in desired sequence, and to make the products or services available at desired times and places. But more: the department at the same time is charged with maintaining and improving its human and other resources in desired fashion—paying, protecting, developing the talents of people; maintaining, improving, replacing plant and equipment; protecting the fund of capital, inventory and supplies. The department if properly constituted is actually a business within a business.

Iteration of the word "desired" in the preceding paragraph is more than a rhetorical device. It makes explicit something so obvious that it is often overlooked. "Desired" connotes goal, objective, purpose. The integrative process, therefore, begins with the *setting of concrete goals* of performance. These goals, which spring from the over-all objectives of the enterprise, must take into account the goals of other departments as well, so that all work toward one end.

Sample questions: How many units shall we produce this year? How much shall we spend on labor? How close should our tolerances on the final product be? How long after receipt of an order should we deliver the product?

A goal represents a level of performance which is to be attained by managerial effort in the course of a substantial period of time (say, a year or more). During that period, there will be frequent changes of operating conditions—such as customer requirements, employee performance, and machine upkeep. Some changes will be intended; others, not. Only by *planning*—trying to foresee and prepare in advance for change—can the goals be attained.

Sample questions: When shall we install the new milling machine? How shall we introduce the new record-keeping system? How many machinists must be trained by May 1?

Allocating Resources

Goal-setting and planning deal with events along the time continuum. *Organizing* may be viewed as a transverse process, the process of arranging available resources in order to fulfill each desired stage of progress. Men, machines, materials, money must be disposed as advantageously as possible at each stage, so that all the parts fit into an organic whole.

Sample questions: How many workers of each category does the department need? How should our machines be laid out for most efficient work-flow? To what point should we increase our inventory of rivets?

Planning and organizing do not eliminate the unexpected; they bring it within tolerable limits. It is necessary continuously to review results produced by each section of the department, make indicated changes in organization, and revise plans accordingly. This process of endless readjust-

ment we may call *co-ordination*.

Sample questions: Shall we have the truckers work overtime till the floor is cleared? How much shall we adjust the speed of the conveyor belt? Should we stop filling out daily maintenance forms?

In order to judge how well a department is progressing toward its goals, results must be *measured* and *reported*. Choice of the right units of measurement is a key to controlling the department. Then the proper indicators must be read and the data recorded and made available to those who are responsible for results.

Innovation, Qualitative Management Considerations

Sample questions: Should our production be measured in units per day, or in first-quality units per day? Who should be the first recipient of the cost report—the foreman or the general manager? Why has our rate of absenteeism gone from six to eight per cent?

Cutting through all the integrative functions is an additional one: *innovation*. To remain viable and improve status in an ever-changing world, an enterprise and each of its



departments have no choice but to seek constantly for new and better products, services, methods, and use of resources. The organization, like a machine, is always subject to improvement.

The categories into which I have divided the managing process—goal-setting, planning, organizing, co-ordinating, measuring, innovating—are, like all definitions of practice, not free of overlap and conflict; but they portray a complex experience in an understandable way. In any particular department, these processes may be carried on well or poorly, in focussed or in scattered fashion. *How well* and *how* sharply focussed determines the success of the department in fulfilling its mission. Excellence requires no mean intellectual and moral effort.

III.

Who Does the Managing?

Who performs the managerial functions of the department? In theory, it is the foreman who, as top management's representative, has the responsibility. In practice, he does very little managing: of goal-setting, none; of planning, almost none; of organizing, a bit; of co-ordinating, quite a bit; of measuring and reporting, not much; of innovating, a bit. Most of the time he is enforcing decisions made by higher managers, "staff" experts or (occasionally) union leaders. Like an old-line sergeant, he "motivates" workers, "expedites" deliveries, resolves emergencies, adjusts conflicts, fills out reports that mean nothing to him, and just



generally keeps on top of things. Whatever managing takes place is done by higher managers, "staff" experts, and union leaders.

The strangest part of this typical mode of running a department is that it totally violates the canon to which all administrators swear allegiance: *Decisions should be made as close as possible to the subject matter involved.* The people closest to the subject matter of department operations are, in descending order, 1) the workers 2) the foreman 3) higher managers and staff. If we were to recognize the true order of proximity (and it is mainly our doubts about worker and foreman inferiority that prevent it), a new set of roles would develop. Central responsibility for managing the department would rest with the foreman in fact as well as theory. Workers, however, would share actively in the managing process. Higher managers would stimulate goals and evaluate results in the light of the business's more inclusive goals. Staff experts, when involved in department operations, would consult with the foreman and his workers rather than with higher managers.

Who Should Manage?

Many managers will be impelled to ask, "What right have

workers to take part in managing the department?" (If the questioners were consistent, they would ask the same question about foremen.) One might counter with another question, "What right has *anyone* to take part in managing, except insofar as he bears responsibility for the outcome?" Workers and foremen will have the right only when we assign them part of the responsibility. But "right" is hardly relevant. The practical issue is, "Can we afford *not* to assign managerial responsibility to foremen and workers if our aim is to increase productivity rather than preserve tradition?"

Granting the desirability of making foremen and workers directly responsible for managing the department, how do we actually bring this about without losing control? It is tempting to discuss the question in terms of organizational techniques, but the discussion would merely divert us from our course. Suffice it to say that techniques are relatively easy to devise, provided they take account of basic principles. Each enterprise, each department will develop its own approach through trial and error.

The Liza Doolittle Theory points the way. Workers, it asserts, behave according to management's treatment of them. Do we want them to act like mature individuals, like responsible managers? Then we must treat them that way. In fact, we must *demand* it, much as we demand it from people higher up in the management hierarchy.

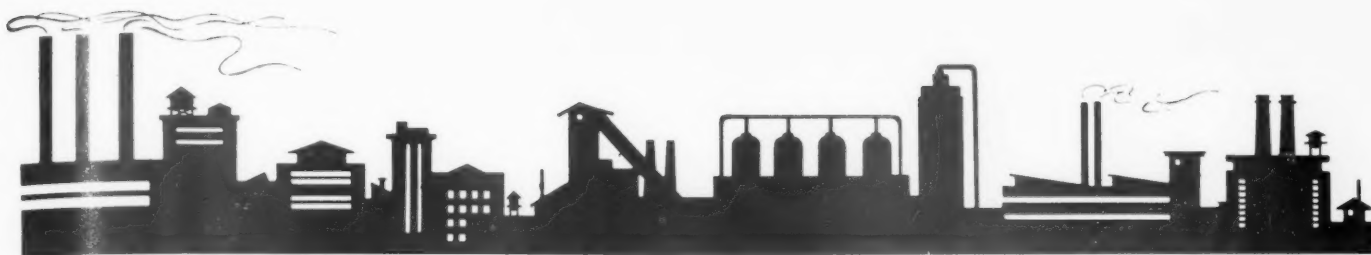
The performance demand made upon a sales vice president is not directly concerned with how he behaves, how he conducts his affairs, how he gets others to do their jobs. It is concerned with results, the results produced by the sales organization he heads. If the sales organization fulfills its mission (within the framework of policies the enterprise has adopted), then, by definition, what the sales vice president has done is sound management. We demand managerial performance by demanding that the manager's organization fulfill its mission.

In the case of the foreman and his workers, we demand managerial performance by demanding that the department fulfill its mission. No one worries how they allocate responsibilities among themselves, so long as the desired results are attained within the company's policy framework.

These demands are made in the context of company progress. As I mentioned earlier, all the managerial processes have a common factor: continual innovation or improvement. The most effective stimulus to managerial performance on the part of foreman and workers comes from the challenge constantly to improve departmental results. Such a challenge cannot be imposed from above; foreman and workers must commit themselves to it as reasonable, desirable, and attainable. That can happen only if all take active parts in setting goals. By the same token, each worker must be aware of the results the department achieves, rather than merely his own.

Indispensable Help for the Foreman

A demand for managerial performance, even when self-imposed, is only half the story. In asking people to stretch to the full of their capacities as mature human beings, we accept the corollary responsibility to provide the help they need by way of technical advice, training, equipment—and



understanding. They will need a great deal of understanding. Anxieties and failures are inevitable aspects of growth.

Help and understanding will be needed, in fact, at every level of the enterprise. Take, first, the foreman:

To enlarge the workers' role is an insuperable task, so long as the typical foreman moves within such narrow confines that any increase in his workers' scope perilously diminishes his own. Many an experiment in worker "participation" has foundered on this reef. If the foreman's function is merely to see that his workers carry out higher managers' directions, and it turns out that the workers can carry out directions without his help, what remains of the foreman's job? If the workers succeed, the foreman is superfluous; if they fail, he is blamed. How can he benefit from bringing his workers into management?

Now, alter the situation. Through demand and help, make the foreman responsible for the full managerial function in his department. Let staff and superiors take their proper stance. What happens? The foreman's job grows to such proportions that he must seek assistance wherever he can find it. The discovery that his workers are ready, willing, and able to assist him in managing the department comes as a relief and a bright hope. He is ready to experiment with techniques.

The techniques with which he will concern himself have little to do with "human relations", aside from the normal uses of courtesy, tact, and respect. His main concerns will be a) to formulate assignments so clear, concrete, pertinent, and demanding that they elicit managerial behavior from people who have not been asked to give it before, and b) to provide his people whatever help they need in their new task.

Foreman's Managerial Skills Beget Aid

The more experience the foreman has had with the processes of managing, the more basis he has for developing his workers' ability to help him manage. In practice, the learning and teaching may be almost synchronous.

Many foremen will receive the change with trepidation, for they will have to learn skills and traits for which the past has not prepared them. The typical foreman is still "the good benchman" who "gets along well with the help". The talents that raised him to his present position are not necessarily the ones needed for successful managing. In most cases, however, there will be sufficient latent ability to support the necessary development.

Higher managers will need help in reconstructing the ways

they work with foremen. Habitually, they view the foreman, not as a manager of a department, but as the connecting rod between "management" and workers. Since he came out of the work force, he is tainted with the generic inferiorities of that group. Only the unusually gifted foreman, strong enough to seize responsibility without waiting for superiors to hand it down, escapes the stereotype. Because of these misgivings, higher managers fear change as a loss of control.

The duties of higher managers, especially those in the echelon directly above foreman, undergo marked alteration when the foreman becomes a true manager. While the second-level manager remains responsible to his own superiors for the results the foreman produces, he exercises responsibility in new ways. Instead of running the department, he interprets the objectives of the enterprise and specifies to the foreman the kinds of goals that define the mission of the department. He challenges and guides the foreman to put on those goals the most ambitious dimensions that the foreman and his workers believe attainable. He offers and renders whatever aid is required. He continually evaluates the department's performance in the light of its goals and bestows recognition proportionately.

Shift of Staff Experts' Role Deemed Proper

To staff experts, the shift of responsibility appears a lowering of their own prestige. They must now act as advisors to foremen and workers. Yet this is properly their major role: rendering advice to those who manage. When the foreman manages the department with his workers, staff men must report to him. Overshadowing any staff disappointment is the new enthusiasm of finding themselves working directly in collaboration with those who need, want, and can immediately apply their advice.

The transition, as we have seen, presents difficulties and will call for new kinds of management skills and attitudes. The obstacles can be and will be overcome. It is only a question of time before the logic of a more productive distribution of responsibilities asserts itself. The industrial world is waiting for a second Henry Ford, who will institutionalize the concept of foreman-worker partnership in managing the department, as forcefully as the first Henry Ford established the idea of the engineered worker. When he appears, he will be revered not only for showing how to reach new standards of productivity but also for restoring challenge and excitement to the long-darkened world of work. ✓



World-Wide Communication via Satellites —

Administrative Aspects

by James E. Dingman



Mr. Dingman entered the Bell System in 1922. He is now vice president & chief engineer, American Telephone & Telegraph Co. A native of Baltimore, he received his M.E. at the University of Maryland in 1921. He is a fellow of A.I.E.E., a member of A.F.C.A. and a director of the Bell Telephone Laboratories, Inc.

AS FAR AS international communications are concerned, satellites appear to offer the first practicable method of extending heavy-duty terrestrial microwave systems to overseas points. Even though we had been thinking for a number of years that satellites could be used to transmit speech, it took Project Echo to demonstrate this. That project is sponsored by the National Aeronautics and Space Administration, but the Bell Telephone Laboratories have cooperated to test some of the possibilities of communication via satellites.

The immediate purposes of the Echo I. experiment are all in the area of basic research. They are five in number. First and most obvious, of course, is to demonstrate that speech *can* be transmitted and received. This has been done. Second, we need fundamental data about the propagation of radio waves through the upper atmosphere and out into space. Satellite circuits must, of course, be as good as those in our overseas cables. Tests with Echo have confirmed that this is attainable. A third purpose is to test the new components that may be used in the commercial communication system. All components in this passive system gave a good account of themselves. Fourth is to test the balloon itself. It worked much better than many expected. Fifth and last, and by no means least important, the modes of tracking had to be tested. Here, too, the results were good.

Need Matches Economic Gains

Obviously, there is still a tremendous lot of work ahead to develop electronic devices that will do things better than in this initial experiment. And in the field of basic research, we must learn a great deal more about the potential behavior of different kinds of satellites as active relay points.

We and our overseas partners are convinced that microwave communication via satellites will be a good means of

caring for expected growth in overseas services. And it may pave the way for intercontinental television. It will also provide a most valuable alternate system to increase the reliability and diversity of our present facilities.

As improvements in national income occur and as industrialization results in greater volumes of foreign trade, more and better communications will be required. Telephone development based upon per 100 population is compared to national income *per capita* for some 23 countries throughout the world. The United States with the highest income *per capita* also has the greatest number of telephones *per capita* and India with low *per capita* income also has low *per capita* telephone development. Almost without exception, those countries whose populations have higher incomes also have use for more telephone service. We believe that as economic gains occur, as they are certain to, in nations throughout the world, better local communications will result, and the needs for international service will multiply.

Half-Billion Telephones in World by 1980

Because of this new expansion, business concerns, government agencies, and the armed forces will have an ever-increasing need for telephone, teletype, high-speed data, and television services to other countries throughout the world. High-speed data channels will be used to send information between far-flung locations of a manufacturing concern or offices of a government agency. Network television to and from overseas points will be desired. Closed-circuit television offers wide uses for business and government.

When we take all of these factors into consideration, they show a continued increase in telephones throughout the rest of the world as well as in the U. S. Indications are

that the total outside of the U. S. will reach about 265 million by 1980, or about 7 telephones per 100 population. Adding the 235 million anticipated for the United States, we see that there will be about 500 million telephones in service throughout the world in 1980.

This expected growth in telephones will give rise to substantial growth in overseas messages and this will require many additional circuits. With today's cable technics, it would require about 50 telephone cables to provide the telephone and data circuits and these would not reach interior areas of many countries. Also, we could not provide television with present cable designs. We believe a satellite communication system holds great promise of economically providing the needed telephone, television, and high-speed data circuits.

How Satellites Can Help

The system which we believe can be implemented at the earliest date with no sacrifice in service, economy of operation, or equipment life is one composed of active repeaters in so-called low-altitude satellites. There are other types offering future promise, but they also offer present and future problems.

Such a system when fully implemented would employ about 50 satellites in random polar orbits at a height of about 7,000 miles above the earth, although a good practicable start could be made with 20 to 25 satellites. It would, we believe, provide an effective and economical means of providing a world-wide communication system.

The number of satellites in the system will allow one satellite to be used by one pair of terminals while another satellite is being utilized by another pair of terminals. And let me emphasize the point that all satellites will be using exactly the same frequencies. Co-ordination between adjacent terminals will be necessary so that each station is beamed toward a different satellite. This method of operation appears feasible and, I reiterate, permits re-use around the world of the same frequency assignments. But it will take administration.

What about the management or administrative aspects of world-wide telephony? Let's consider first these aspects in relation to our present radio and cable network.

This network provides communication service between the United States mainland and over 160 overseas countries or areas. Such service is furnished as a joint enterprise of the A.T.&T. and the appropriate telecommunication organizations of the other countries and destinations reached. The furnishing of the service and the rates from the U. S. are subject to approval of the Federal Communications Commission.

Sundry Agreements for Overseas Operations

The establishment of overseas telephone service between the U. S. mainland and an overseas point is based on a general service agreement executed by the A.T.&T. and the organization operating at the overseas point. At present, we have 163 of these agreements in effect.

The principal provisions of such a service agreement include



The responsibilities of each party as to the provision of facilities and their maintenance and operation.

The type and extent of services to be furnished, the rates to be charged and the division of revenues.

The responsibilities for the collection of charges, allowances for interruptions to service, and the handling of uncollectable revenues.

The frequency of inter-company settlements and the currency to be used in settlement statements and in paying balances due one or the other.

Before service can actually be started, other agreements covering detailed operating and maintenance methods, the frequencies to be used for radio circuits, the hours service is to be available, the number of circuits, the detail to be shown on settlement statements and various other matters incident to day-to-day service operations must also be reached. Language, of course, is one of the problems.

Facilitating Growth of International Messages

The use of circuits in the overseas network is not limited to A.T.&T. and our foreign correspondents. Many circuits are leased to other U. S. common carriers for the transmission of teletypewriter messages and other data. It is, of course, necessary to work out these agreements.

In addition, many private line circuits of this network are leased to the government for military and administrative uses.

Finally, it is necessary to effectively integrate this overseas network with the domestic and foreign communication networks, thus making it possible to talk from any telephone in the U.S. to some 96% of all the telephones in the world.

Overseas telephone service was started in 1921, and since that time A.T.&T. has negotiated hundreds of agreements for the construction, maintenance, and operation of inter-continental communication facilities with overseas organizations. The effective administration and operation of these facilities have resulted in the very substantial growth in overseas messages which we have experienced in the ensuing 40 years.

Now we propose a new facility—satellite communications—utilizing microwave radio which we believe can provide additional overseas circuits at attractive costs. If these microwave circuits are simply added to the existing circuit groups now in service, the only new administrative problem is the one involving the usage of the satellites. The usage agreements and the administrative aspects for satellite systems will have many points of similarity to those for radio and cable systems. The organizations interested in communication satellite systems are the same organizations we have been co-operating with over the past 40 years.

Tested Methods/New Elements

The basic management methods are clearly outlined; they have been employed in the past and have a long history of successful operation.

It is also true, however, that administering a satellite communication system will bring some new problems. For example, due to the needs for rockets and launching pads for other space activities, it is necessary to work very closely with the government, at least during the early stages, in a vigorous program to experiment with active communication satellites. We believe this is consistent with national policy and within the scope of the National Aeronautics and Space Administration which has the broad responsibilities to advance the peaceful use of space. The Bell System has proposed that NASA provide the rocket and launching pads at Bell System expense to get an experimental satellite in orbit.

At some future date, the companies making rockets will probably provide facilities for launching commercial communications satellites. At such time we will most likely wish to contract with such companies to launch our satellites just as we now contract with others to build our buildings.

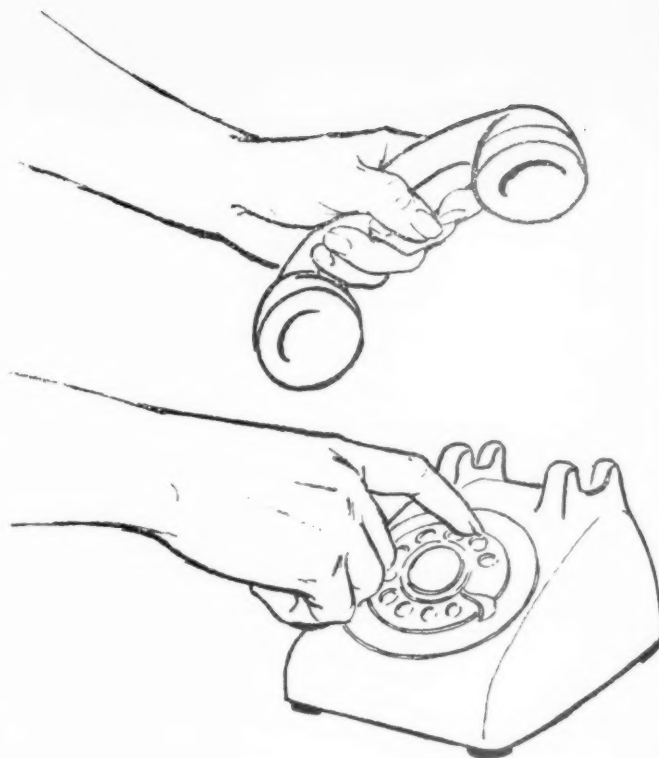
Handling Financial, Responsibility Phases

Two other important administrative aspects of satellite communication systems come to mind:

One of these is financial. We estimate that a fully operational satellite system may cost \$200,000,000 or more and that many additional millions of dollars will be required for research, development, and experimentation before such an operational system can be implemented.

The Bell System has already devoted much time and money in research and experimentation. We recently received authority from the FCC to begin experiments with our own active satellites. We are ready to proceed with tests just as soon as an experimental satellite can be gotten up.

So, whereas the costs of satellite systems are high, we are confident that the Bell System, its overseas partners,



and other interested international common carriers can manage a satellite communication system just as we now operate cable and radio systems.

The other aspect is one of responsibility. Domestic and international communications are now the responsibility of privately-owned communications common carriers with regulation by the FCC and various state agencies. We think this is where such responsibility belongs regardless of whether the facilities are provided by cable, radio, or satellites. Continuance of this policy will provide for optimum development of world-wide satellite communications and for its efficient integration into the existing domestic and overseas communication systems. This policy has already provided this country with the finest, most complete, most dependable communication system in the world.

Space Communications Development Overriding

I believe that the development of space communications as herein outlined is vitally important to this country and that there should be no delay in such development. The U.S. now leads in the peaceful use of space technology. The granting of experimental frequencies and continued government and industry co-operation will allow the nation to retain this leadership. We would like to move ahead rapidly and are prepared to spend our money and provide our technical and administrative know-how to the solution of the many problems ahead.

(Editor's Note: This article was adapted to and shortened for ADVANCED MANAGEMENT from Mr. Dingman's talk before the meeting of the N.Y.C. Chapter of Society for Advancement of Management, March 16, 1961. Speakers with talks concerning or paralleling the subject of this article are, we are informed, available through local Bell System speakers bureaus.)

Operations Research: A Management Assessment

Often-Misconstrued 'O.R.'

Yields Incisive, Feasible, Optional

Solutions to Many Posers — Some 'Unsolvable'

by William Lazer

MANAGEMENT PERSONNEL often have a confused concept of operations research. A widespread lack of understanding of the nature, potential, and limits of O.R. exists. This tends to manifest itself at one extreme in a suspicion of, and negative reaction to operations research and at the other extreme, in an unqualified acceptance of O.R. and its accomplishments.

Even though operations research has much in common with management, interestingly enough, there has not yet been a common terminology developed. Management often does not understand O.R. and operations researchers themselves help to create barriers. They adhere to their technical language and approaches which are useful for their purposes but are usually foreign and meaningless to management. It seems worthwhile, therefore, to develop in simple terms the meaning of O.R. and some of the underlying premises of the operations researcher's techniques.

Operations research cuts across many fields. Operations researchers include statisticians, mathematicians, physicists,

biologists, logicians, accountants, finance executives, procurement officers, and physical distribution executives. The involvement of such a heterogeneous group of personnel and disciplines makes it difficult for business managers in general to communicate with and understand operations researchers.

Whereas managers and operations researchers attack similar types of problems, there is often a striking difference in the tools used and in the viewpoints and approaches adapted. The operations researcher makes frequent recourse to mathematical and statistical tools. He refers to models and systems. These are part of his normal equipment. Management expects the operations researcher to demonstrate a degree of skill in applying mathematical tools not required of other people who confront similar types of problems.

The field of operations research is a highly technical one. "Management opinion, or judgment about O.R. applications or techniques, can generally be accorded lay standing only. This does not mean, however, that management must assume a subordinate role to the practitioner in dealing with his

problems."¹

Sources of Confusion

Management is often misinformed about five areas of O.R.:

1. *The exact nature and scope of operations research.* Some managers believe it is a revolutionary innovation in the science of management while others think that operation research provides nothing fundamental or new and has always been practiced. Some think that operations research consists in turning all management into mathematical formulae; others believe that it consists in resolving management problems through the use of electronic computers. Unfortunately, there is no clear and universally-accepted definition which points out exactly the content of O.R.

2. *The practical range and utility of operations research.* Many people feel that operations research concerns theoretical developments which have no practical application. There are managers who believe that there is no need to undertake these complicated studies—their problems can be solved by "common sense" and "good judgment".

3. *The conditions of application of operations research.* Some think that O.R. is expensive and is a luxury that large firms only can afford.

4. *O.R. models and techniques are based on data the business usually does not have available.* Some believe that where there is a lack of statistical data and cost figures O.R. cannot be used. In addition, to gather such data requires more time and effort than decisions warrant or can allow.

5. *Mathematical techniques per se and the field of O.R. are often confused.* The mathematical tools of the operations researcher, as such, are just part of his problem-solving kit. They should certainly not be construed as constituting the functions of operations research.

Definition of Operations Research

Although there is no wide consensus on the definition of operations research, we may gain some perspective of its boundaries and methods of functioning by considering some of O.R.'s major characteristics.

Operations research has a core of techniques and methodologies which are suggested by terms like systems theory, payoff tables, decision trees, simulation, waiting-line theory, game theory, and linear programming. It is oriented towards the similarities and analogies of quantitative problems from widely different fields. It is concerned with the application of decision theory to problem-solving. Some of the O.R. techniques may even be suggested by the problems that management tackles. O.R. has been fostered by available technology in terms of powerful and speedy computers which made it possible to obtain the calculations, or perform the experiments needed, in a relatively short period of time and at reasonable costs.

At present, O.R. does not represent an applied discipline. Operations research might even be thought of as the application of scientists to new problems—problems which may

be unrelated to the content of their original training and experience.²

O.R. is a stage in the development of an applied subject-matter field rather than the discipline itself. It reflects an approach or method. Like most effective methods, O.R. is scientific. We can characterize one dimension of O.R. by saying that the operations analyst, in contrast with the conventional business analyst, has a strong predilection for formulating his problems by means of formal mathematical models.

One of the most important characteristics of operations research is its practical aim. It is *prescriptive*, not *descriptive*. It is concerned with developing concrete strategies and decisions. It prepares for action.

Other important characteristics of O.R. are

1. Scientific method is applied to the solution of problems.
2. Mathematical models and quantitative techniques are often used.
3. Solutions to problems are achieved.
4. O.R. is an aid in decision-making but it is not a means of automatically making business decisions.
5. Optimal or best alternatives are sought.
6. "New techniques" are often used to solve problems.
7. The interdisciplinary approach to problem-solving is used.

What's New About O.R.?

The "new" dimensions of O.R. are relative ones. For instance, the idea behind operations research is certainly not new. Operations research, however, has a point of view in the formulation of policies and in the preparation for complex decisions which introduces a new spirit of systematic rational research. It utilizes the scientific notions of probability of risk, and decision-making under uncertainty in the management of business.

The methodology utilized may be new. Perhaps the major deviant or new characteristic of O.R. is the use of new mathematical techniques and models for formulating and solving problems. For example, the use of dynamic programming, Markov processes, probability theory, linear and non-linear programming, simulations, waiting-line theory, and game theory to arrive at the selection of the best course of action or the best policy is new.

The way that an operations researcher perceives a business, or any part of it, may be new. The business is viewed as a total system of action, comprised of complex sub-systems, directed towards the achievement of corporate objectives. It is seen as a multifunctional unit in which various sub-systems may have conflicting goals. The model of the business as a system is oriented to thinking in terms of inputs, processes, and outputs. This perception of the business often leads to a better grasp of the most effective combination of inputs to achieve desired outputs, the organizational processes involved, and the functioning of the enterprise itself.

1. W. W. Cooper, "Operations Research and Economics," *The Review of Economics and Statistics*, Vol. 40, Aug. 1958, p. 196.

2. See T. C. Schelling, "Comments," *The Review of Economics and Statistics*, Vol. 40, Aug. 1958, p. 221.

Use of Models

The operations researcher, in attempting to improve decision-making, deals with the concept of models. Businessmen are frequently surprised to find that they constantly use models. They employ idealizations, graphical representations, analogies, and rough practical guides with confidence, but profess lack of knowledge of models. A model merely involves translating perceived business relationships into representations, symbols, and perhaps mathematical terms. For example, groups of internally consistent statements about transportation, advertising response, purchasing, and pricing comprise models. The general process of model building is portrayed in Figure 1.

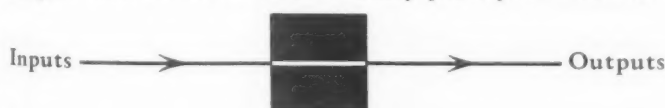
A model is a "simple" way of thinking about a real world business situation. A model is an abstraction. It abstracts only a few aspects of the particular business situation that are going to be studied. The reason for abstracting certain characteristics of an organization and dealing with them in the form of a model is to obtain a clearer and more comprehensive understanding of the effect of the abstracted characteristics on the total organization.

A model then may be a set of mathematical equations which represent a certain group of assumed relationships. It is a means of putting numbers in for variables and obtaining answers. Models, therefore, become useful tools for prediction. We must remember, nonetheless, that mathematical models, however precise, do not correct for false assumptions.

O.R. and the Systems Model

It was previously noted that the operations researcher often finds it helpful to conceive of a business, or part of it, as a total system of action. This model views a business as the integration of various activities necessary for the successful accomplishment of the company's goals. The systems model acknowledges that there can be many conflicting objectives within an organization and that concessions will have to be made among the component sub-systems. This model also recognizes that some means must be allocated to non-goal directed effort: effort necessary for sustaining the business system rather than achieving goals directly.

Operations researchers often view the business, or a department, as an input-output system. Then the organization is represented by a black box. Inputs flow into this box and outputs flow out of it. This is usually portrayed as follows:



For example, marketing research information is an input which may foster organizational responses and may result in the production of a product (outputs) designed to better meet market needs. The black box is just a means of describing a system whose structure is probably unknown.

Input-output system can be a very useful way of looking at organizational behavior. Conceptually, the researcher is able to vary one of the inputs and see what happens to the output. By so doing, the sensitivity of outputs to each of the particular inputs can be determined. Thereby, the best

PROCESS OF MODEL BUILDING

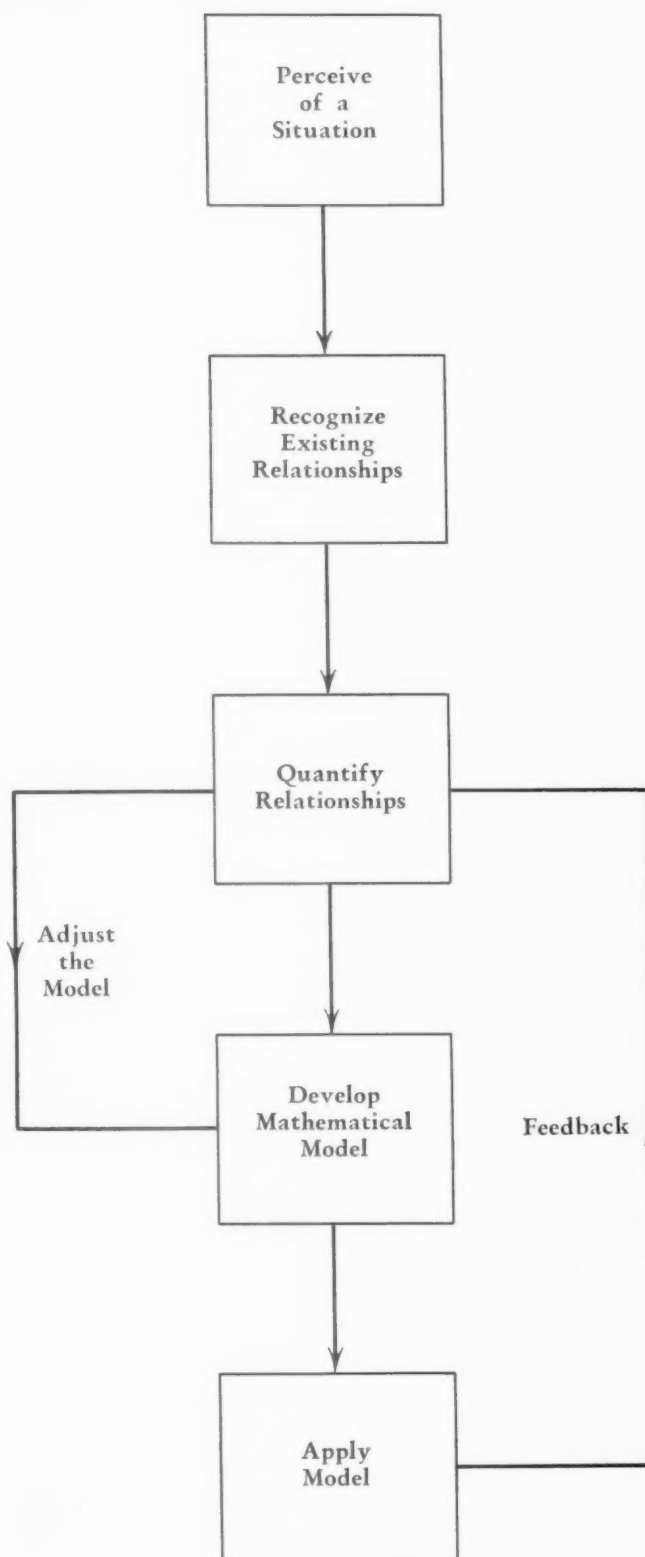
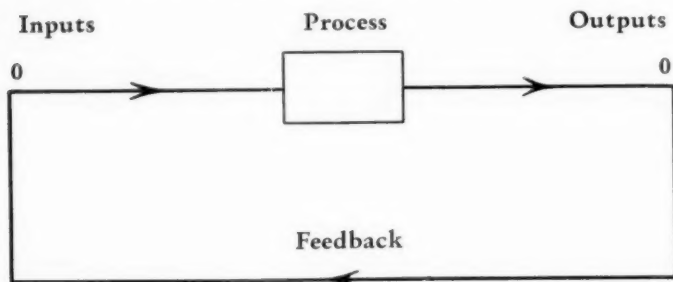


Figure 1

mix of inputs to achieve a company's objectives, or outputs, can be chosen. It is this type of thinking which fosters the optimum use of alternative resources.

Most decisions will be altered or supplemented by future decisions based on additional information. Therefore, in any input-output model, allowance should be made for the feedback of information. Feedback about realized outputs occurs and can be used to alter the mix of future inputs. The system is usually diagrammed as follows:



Feedback links permit the development of integrated control systems. The study of such systems, where an input-output model with feedback links is developed so that the system controls itself automatically, is known as cybernetics. These concepts carry over to the area of automatic inventory controls and automatic purchasing systems. For example, one can conceive of an automatic ordering system which is set up with information being fed back to a control point about the current inventory levels. This can initiate a whole system of automatic ordering which will bring the inventory up to a predetermined level. Business systems, however, are complex and do not possess an automatic control feature since humans are involved in the decision process.

O.R. and the Decision Process

The major responsibility of management is that of making proper decisions. A significant charge of operations research is to improve management decision-making. Figure 2 depicts the major elements of a logical approach to decision-making. Operations research techniques have been helpful to management at every stage of the process.

Management is cognizant of explicit or implicit company goals. At various times, it checks the company performance against the specified goals. When there is a discrepancy between them, a problem may be recognized. Having distinguished a problem, management may then perceive of a set of alternative solutions. The set does not usually contain all possible alternatives since decision-makers often lack breadth of vision and imagination.

The perceived alternative solutions must be matched with available and potential company resources and the corporate posture. Some are eliminated as not being feasible or admissible solutions. The result is that the decision-maker defines a set of feasible alternative courses of action that are available to solve the problem.

The next step is for management to predict the dollar outcome that will accrue if each of the alternative solutions were adopted as a solution for the problem. This is helpful in choosing a course of action but additional information is required for a rational decision. Management must also

DECISION PROCESS

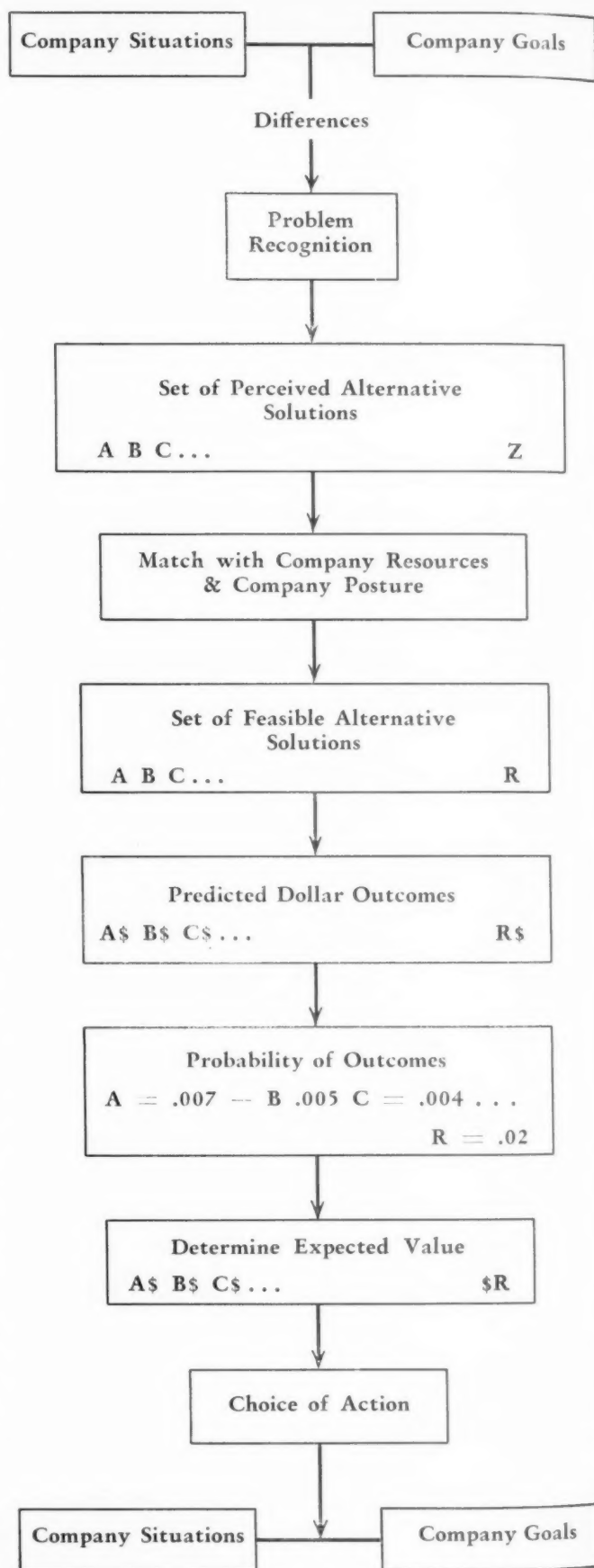


Figure 2

determine the probability of each feasible solution leading to a successful solution. The estimated dollar value of a solution multiplied by the probability of the outcome being a successful solution gives the expected value of a solution. By determining the expected value for each feasible solution, the alternative with the highest expected value may be chosen and a decision cycle is completed.

Achievements of O.R.

The following are some of the significant O.R. contributions of lasting importance to management:

1. Operations research has had a very favorable influence on management practices and attitudes. Operations research has persuaded management that it can approach various complex problems in a scientific manner. It has convinced management that systematic, quantitative analysis can be most helpful in decision-making.

2. Operations research helps broaden management vision and perspectives in selecting alternative strategies and solutions to problems. It accepts as a basic approach the fact that there is not just one way, and certainly not a traditional way, of achieving business objectives. It usually delineates a finite variety of practicable strategies, each with its particular advantages and disadvantages, and various benefits and costs.

3. Operations researchers have constructed many specific models that can solve a great variety of individual company problems. This can be seen in the variety of examples of inventory studies, product-mix problems, transportation and warehousing applications, cost studies, and waiting-line applications, that have been carried out successfully for particular firms.

4. Operations research techniques and applications have opened up paths by which theories of business management can be developed. Thereby, O.R. aids in furthering the development of management science.

5. Operations researchers, with their measurement techniques, have rushed in where business administrators formerly feared to tread. They have solved problems that "could not be solved".

6. Operations researchers lend clarity to problem definition and effectiveness to problem solving. For example, "The mere portrayal of the flow diagrams needed before any actual simulation can be run is in itself of primary importance to the managers, economists, and operations researchers. The construction of the diagrams forces explicitness and a degree of definition that cannot be obtained by verbal methods."³

Some Limitations — Concluding Remarks

O.R. techniques and accomplishments have been hailed widely by proponents. The application of mathematical tools and computers to the decision-making process has been endorsed as a managerial revolution. "As described by enthusiasts, it constitutes a radical transformation in the sphere of management equal in magnitude and significance



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to the changes in production wrought by the great Industrial Revolution."⁴

Still, in evaluating the achievements of O.R., management should be cautious. While the promise and potential of new decision-making tools should be recognized by alert managers, so should their limitations.

It should be evident that the operations researcher with his quantitative tools will not replace the manager as a decision-maker. "The new decision technology has a potential for enriching and enlarging rather than diminishing the job of the manager."⁵ Managers will still shoulder full responsibility for making decisions. Through operations research, they may be afforded the comfort of more pertinent scientific information.

O.R. techniques are not equally applicable to all kinds of business problems. They have been successfully applied in problems of capital budgeting, resource allocation, inventory management, and scheduling of production and shipments. These are "concrete" or routine problems, or both. Some of the most important business problems do not possess these characteristics, and they cannot be solved through O.R. techniques. For example, consider the formidable management decisions that have to be made where no objective basis exists for making precise evaluations of the outcomes of alternative policies or courses of action.

It should be remembered that models, which are basic tools of operations researchers, are based on assumptions. Regardless of the degree of mathematical sophistication achieved by the model, if the basic assumptions are wrong the model will be ineffective. Sometimes, in molding business situations so that they fit models, the result is that the degree of reality outside the model is greater than the degree of reality within the model.

A widespread lack of ability exists on the part of management to understand the techniques and methods of operations researchers. Management is often impressed and overwhelmed by the mathematics and precise answers presented by operations researchers to complex problems. They are not prone to, or perhaps capable of, questioning the authoritative recommendations made by staff personnel. As a result, management may tend to initiate the operations researchers' suggested programs without careful evaluation. Where this is done, the decision-making function is being shifted—through management's failure to accept responsibilities—to operations researchers. ▽

3. Martin Shubik, "Economics Management Science," and "Operations Research," *The Review of Economics and Statistics*, vol. 40, Aug. 1958, p. 220.

4. Melvin Anshen, "The Manager and the Black Box," *Harvard Business Review*, Nov.-Dec. 1960, Vol. 38, No. 6, p. 85.

5. *Ibid*, p. 90.

Executive Development

BY REUBEN E. SLESINGER

IT IS RATHER unlikely that any type of industry has witnessed as rapid an advance in the field of management training in the last decade as has the business of banking. It is of interest to inquire into the *raison d'être* of this situation and to ponder further the effects. The very nature of banking itself, to begin with, has contributed much.

Since its beginnings, banking has been considered as a rather conservative type of organization. Its senior employees were ones usually who had many years of experience and worked themselves up to their present positions through the many preliminary operations of their bank. To work in a bank held high prestige value to the young man, and the lure of more responsible positions motivated him to work assiduously from the outset of his career. Although many young men complained at what they argued were rela-

tively lower wages in banking than in comparable industry, banks continued to attract exceptionally capable employees, both collegiate-trained and not.

Two things continued to operate to attract these people 1) the opportunities for advancement and 2) the relatively good fringe benefits that were available, especially the high degree of job security. As a result, a rather complacent attitude towards management and supervisory training developed among most banks. A sufficient flow of competent personnel was developed in the internal pipeline of the bank and high-grade new employees were attracted in the annual labor market.

One must remember, too, that the structure of banking a generation ago was decidedly different from that of today. There were few of the large city banks with a series of branches that now dominate the scene in many locations. Staffing of a smaller bank operating as a single unit with comparatively close personal contact between all levels of employees reduced the loads thrown upon systematized managerial relationships. The general practice, then, was for most banks to use substantially the same managerial tools and techniques that had been employed when the bank first began operations and to feel that "what was good then, ought to be satisfactory today".

New Factor Disrupts Managerial Tradition

What, then, were the results of this rather complacent policy? The situation, to be sure, was complicated because of the depression of the '30s and the rather severe shock that permeated the banking structure during the early days of that depression. But, let us examine the nature of bank management at that time. Unusually able young men were finding great difficulties securing employment during the depressed years, and many were attracted to banking in lieu of other occupations, not because of the wages paid by banks but rather because of the promotion opportunities offered. In addition, the quest for security loomed as one of the most significant job characteristics at that time, and so the relatively high degree of job security common in banking stood out as an important countervailing force.

Meanwhile, what was happening to the already-employed young men in banking—those who were hoping to advance into the various managerial levels? Since few banks of-



Development in Banking

fered any comprehensive program of self-development, managerial development or training of any type aside from particular job training, there was little direct pressure on many of these employees to improve themselves. One might argue that a seriously inclined employee should seek out his own sources for self-improvement, but this is too idealistic in modern society where there are so many diverting attractions that consume much of one's leisure time. Some sort of directed guidance towards self-help becomes essential.

But, in the absence of such assistance, many of the employees with a decade or more of service could show little if any illustrations of improved potentiality for greater managerial responsibilities. The nature of the smaller and more simplified banking structure, in addition, clouded some of the issue.

Tradition, Impetus for Change Meet Head-On

Since there always were some junior employees and assistants who did exhibit managerial talents and tried to improve upon them, there generally was a sufficient flow of competent personnel to fill the managerial gaps. In the smaller bank, there were few such vacancies, most of them resulting from deaths, seldom from the departure of a key officer to another organization or from the expansion of the parent bank through a merger. This situation contributed further towards the complacent attitude about managerial development *per se*.

The absence of internal pressure towards self-improvement and the limited opportunities for promotion added to the somewhat passive attitude of many employees who might have had a great potential when first hired. The slow pace of advancement and the rather complacent attitude in general added to the over-all frustration of many junior employees and nipped in the bud many of their ambitions. A sort of "what's-the-use" attitude tended to prevail.

Add to this the comparative ease with which banks could drain off much of the cream from the labor market during the '30s. Many of these depression-trained young employees also came to the banks with great promise, and ambition, too. The effect on the existing labor group often created animosities. Some of the earlier workers felt that this group was destined to eliminate the chances for better jobs because

some of them had rather substantial collegiate backgrounds. Although one might expect that the older group might accept the challenge through internal improvement, this was rarely the case. So, the complacent attitude had developed complications.

Middle-Management Scarcity — WW II. Repercussions

What is more, the situation seemed contagious. Instead of the depression-hired employees leading the way, they tended to fall in line with the existing slower pace and calm attitude of doing little by way of executive improvement.

Top banking management is to be adversely criticized for this lack of foresight. By this time, industry in general had made rather rapid strides in the fields of scientific management and improved training. There was much that could have been carried over into banking. Fortunately, so far as bankers were concerned, there was no problem inflicted by actual or potential union organization and pressure. (It might be added that the pressures exerted by unions in certain industries have been the direct impetus for complete revamping and improvement in management.) Banking, along with all economic activity, suddenly was confronted with catastrophic changes because of World War II.

The failure to train effective middle-management personnel during the '20s and '30s began to have some repercussions during these war years. The problem was complicated by the fluidity of the labor force and the departure of some highly valued employees into military service. Gaps in the managerial personnel ranks—especially junior officers of banks and middle management—became more and more

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evident. There was little that banking could do by way of crash training programs, such as were adopted in many industries. The earlier experience with training in banks was limited, and it is doubtful, too, whether an awareness of the how of such programs was present.

Post-War Diagnosis, Reduction of Problem

After the war was over, the full force of the problem came to be realized by bank management. The very nature and characteristics of banking were undergoing change. The competition for the superior college graduate was keen and the lower bank salaries were not compensated by the fringe benefits. These new potentials in the labor market were finding multiple job opportunities, many of which also offered good fringe benefits. Banks were being squeezed.

Not only were they finding new difficulties in current hiring, but they were beginning to realize the inadequacies of many of their present employees, especially when it came to consideration for advancement into areas of greater responsibility. The 1920s group had lost much of its ambition and had done comparatively little to improve itself; the '30s group, hired as a great potential, had grown complacent too; subsequent employees had been overlooked in the confusion of the war years.

At about the same time, the demands for competent executives in banks began to expand rapidly. The normal course of economic growth in the nation added yet another burden on bank management—the movement toward intra-bank mergers. Principal city offices merged; main offices opened up many branches; combinations of many types were effected. The demands and drains on management are quite different when a bank president is able to supervise all of the operations as contrasted to a situation where he has a

dozen or so branches under his wing—some branches almost as large as the principal office during the '20s or '30s.

To build up an efficient managerial staff to counsel the president of the new structure became a most difficult task. The employees of the '20s and '30s who should have been well enough trained to act as a staff and assume high-level managerial positions were found inadequate in many cases. Resort to the use of newly-hired, but ambitious and competent young employees, often created many internal personnel relations problems. Banks were forced to go to the outside in many instances for adequate staffing. Not only were personnel from other banks utilized, but also outsiders from industry often were hired. This was especially true in the service areas, such as personnel, public relations, and training.

Adequate Development Programs Hit Stumbling Block

Bank management finally came to realize the importance of adequate management development programs on a compulsory basis or at least a directed type rather than to throw the entire burden on the individual. On a crash basis to fill the gaps, numerous ideas were followed, with various degrees of failure and success. Outside agencies often were utilized where the bank felt that it was too small to institute a program of its own for executive development. The larger banks began to institute various types of training programs.

Resentment soon developed among existing employees. When a new crop of employees was placed in the training program, existing employees with a decade or more of service began to feel that this ended their opportunities for advancement. Indeed, in many cases this was the intended result. But, to keep the morale of the entire labor group from suffering, many of the programs were set up so that an existing employee could himself ask to join the training program just as were the newly-hired personnel. Few availed themselves of this opportunity since they felt disinclined to spend several years learning the operations that they felt were well within the scope of their competence.

This reluctance to accept a self-advancement opportunity gave the bank top management a good type of screening. It should not be implied that these people are incompetent; merely that they are happy doing their current work within a given limited scope of responsibilities and are not interested in attempting to move out into the sphere of greater responsibilities. These people are essential to the continued functioning of the bank and it is an aid to personnel management to be able to segregate those who are in a present job only as a step towards further advancement and those who consider their present position as a sort of terminal one and who exert every effort to do the best possible in this task.

Minimizing Training Costs, Unionization

Banks have made rapid strides in the last few years by way of compensating for their former lack of training programs, aside from specific technical on-the-job training. Many have elaborate training programs and departments. These are expensive operations, and leave the smaller banks somewhat at a disadvantage. It is suggested that for these



a type of city central training program be instituted. This would mean that several of the smaller banks in a given area might support a training program that would inure to the benefit of the entire group. There are many universal principles of executive development that could be handled in such a group without making the program too general. The interchange of ideas among the personnel attending such a program is another factor to commend such an approach.

There is an important collateral consideration that appears more significantly on the horizon today in connection with the entire problem of bank personnel. This is the possibility of unionism in banks. Banking stands out today as one of the most important industries in which unions have had little success, and where they have had the success it has been among limited groups of employees. It is important to ask why this has been the case. The most important reason for the general absence of unionism in banks has been the fact that many bank employees for long have not considered themselves as laborers *per se*; they look upon their present job only as a stepping stone towards advancement into the managerial ranks.



Thus, they are not interested in the problems of "production" workers since they feel that these would have only a temporary interest for them. Their concern is with getting into the managerial ranks. Therefore, if anything happens in banking that will stymie or remove the possibility of employees moving into supervisory positions, the hands of union organizers will be strengthened.

In this connection, unions will find female employees a more promising field for organization. Since the turnover among female employees may average out to a tenure of work of less than two years, such employees will tend to have greater interest in direct bread-and-butter advantages and be less motivated by the security and other long-run advantages of bank employment. Also, banks must be careful in their trips to the outside to fill managerial gaps lest such practices also discourage current employees and turn

their interests towards unions out of an antagonism towards management.

Middle Management Not Threatened by Automation

The rapid strides towards automation in banks also complicate the program of executive development. The thinking in this area is not clear today. There are some who argue that automation will reduce the number of middle-management positions, will make the demands on top management greater; and will reduce the skills of the mass of employees, many of whom presently are aspiring to positions of increased responsibility. If such is the case, a new philosophy towards newer and younger bank employees must be developed. If their opportunities are stifled, more unionization in banking will follow. There is a second school of thinking that feels that automation will not reduce the requirements for middle management but will only give it greater and more effective tools with which to operate. Because of the nature of banking, the writer holds with this second school as more descriptive of banking.

There are many types of personal services that bankers render that cannot be automated. The automatic equipment certainly can furnish these officers with more information, faster information, and better-organized information so that they can perform their tasks more effectively. It does not seem likely that the automatic equipment will replace the bank junior officer group. It might have the effect, however, of introducing a greater number of routine workers into banking who, in turn, might be easily swayed to union organization since they would preponderantly tend to have little or no ambitions to advance into managerial positions.

Summary: Dynamic Banking Overshadowing Static

The burdens that are thrown on the training program of banks today, thus, become doubly significant. Not only must they serve to meet training needs but they must operate as well as a technique by means of which banks strengthen their traditional philosophy of extending the opportunity for advancement and promotion as a fringe benefit of employment.

To almost all banking personnel, movement into the field of executive training and development is charting an almost new and unlimited as well as challenging frontier. The underlying validity of this newer emphasis on training in this area is supported by the number of banks that have gone into this service field and have utilized specialists both on their internal staffs and as outside consultants.

Banking no longer can be listed as one of the rather static sectors of the economic environment; on the contrary, its rate of growth and dynamic character are above the national average and expectations are for a rapid and continued growth during the present decade.

Adequate executive training in banks is important, too, not only from the viewpoint of providing better management for the bank itself, but also as a facet of public service. If bank management is better equipped, it will be in a more advantageous position to exert leadership in the community and to help render effective advice in the many realms of business and finance. ✓

- The business recession has once again revealed that relations people are expendable. Business after business has slashed the personnel staff to the bone. Apparently management is still prone to look at relations work as a fringe activity of some benefit in a rising market but a needless luxury when business turns downward. To the extent that this is true, relations people have failed their managements — for they have not proved their value to the business. And so they are at the crossroads — one road leading to extinction as a separate function, the other to an indispensable place in management.

A RECENT ISSUE of a leading magazine carried an article with the intriguing title of "Why Businesses Fail." Seven main causes were listed — but nowhere in the article was there any mention of failure in the management of people as a cause of business failure. Yet, we know there are no business problems as difficult as the management of people. What is more, the people area of the business offers real opportunity for improving profit, because people are expensive. Not only are their pay rates going higher and higher, but fringe benefits — which are mostly payments for time not worked — are also skyrocketing. In a typical large company, for example, the total cost of employees represents more than 40¢ out of the dollar, and of the 40¢ more than 10¢ represent payments for time spent off the job. Just consider what a 20% improvement in human productivity would do for the profits of a business — and the prestige of the personnel relations function. Certainly, it would bring home to all management the vital role of a strong relations program.

Of course, productivity of people is raised primarily by improved equipment—but let's not forget that major strikes in steel, railroads, tugboats, and airlines in the last year have been partly over the issue of work rules. It is these very rules that have interfered with the opportunity of steel companies, for example, to capitalize on their heavy investment in automatic machinery. One steel executive described the problem in this way:

"It's somewhat like a girl working at a typewriter. You may have 20 or 30 letters for her to type in a day. Her typing speed may remain pretty constant, and if she goes pretty steadily from one letter to another, she'll get out the work easily by the end of the day. But if she has a tendency to leave her typewriter for one thing or another after each letter, the job may stretch out to a day and a half."

The steel companies requested greater flexibility in such things as work scheduling, assignment of jobs, and setting of incentive pay rates. They asked for relief from such things as wildcat strikes, lengthy arbitration, and job loafing. These are all people problems, not machine problems, and herein lies the real opportunity for relations people. Three main approaches will help: 1) establishing an objective 2) de-

veloping a philosophy and 3) devising an action plan to meet the objective.

Establishment of Objective

Unfortunately, many personnel people themselves have not established an objective that "sells" relations work to their management. When we aim to "improve morale", for example, we are quickly dubbed with the unrewarding title of the "Health and Happiness Lads from Personnel". If this



is all we are, then we are hopelessly out of step with reality. Today there are just too few exploited employees to justify the expense of an organization that limits itself to the problems of bedeviled workers. And the "high-morale" objective puts the cart before the horse. The real objective of a personnel relations group should be to aid every part of the organization in achieving optimum human productivity. Not only does this objective have ready acceptance by management, but it really is the basic reason for the existence of a relations organization as a separate part of the business.

Relations Work at the Crossroads

by H. W. Tulloch

And when we focus on ways to improve human productivity, we become part of the top management team overnight. In fact, we are the only ones, apart from the general manager, who are likely to recognize that productivity is a problem that cuts across every function of the business. Those of us who are in a manufacturing business know only too well how those managers who walk through the factory — like those who work in sales and accounting and engineering — always second-guess the efficiency of factory operators. When they leave the factory, they are so busy shaking their heads that they don't even see the equally poor production performance in their own outer offices. The challenge to any business is to beat competition by improving the effectiveness of every person working in it. This is the job of relations people.

People Formerly Equated with Materials and Money

Let's look at it another way — through the organization of work. A typical manufacturing company, for example, has long had four well-recognized economic activities — marketing, engineering, manufacturing, and finance. These functions are involved with bringing together the plant's resources in men, materials, and money in such a way as to produce goods at a profit. And historically at least, the people portion was looked at much like materials and money — as an economic asset to be used like an ingredient in a cook book. But it was found through bitter experience that this people portion is complex beyond description because people rebel when treated as a commodity. As a result the relations function was added alongside the traditional ones and was given as its responsibility the relations environment. Such an environment is one established to provide relationships between people that allow all of the plant resources to be utilized in such a way as to optimize productivity.

Too many business managers, however, have still not recognized the real reason for relations being a distinct and separate kind of work requiring adequate staffing and expenditures of funds. Some still resist putting all phases of the relations activity into one organization component. Some still look at its role as only one of hiring people and negotiating with unions.

Clarifying Role of Relations Function

But even when we do have the full relations responsibility, how many of us are really permitted to carry it out? For example, how welcome are we in other parts of the business when we audit relations work? Are we as welcome as the financial auditors, for example? If not, we have some work to do to educate management on our role in the business. Here is a possible approach to help clarify to our managers the nature of relations work.

First, we must educate our management to recognize that the really important relations activities are being carried on wherever people are at work in the business, and one man — the relations manager — must see that the quality of such work at least meets the minimum acceptable standard.

Second, we must make it clear to our managers that the relations manager should be given responsibility for advising and counseling other managers on a day-by-day basis, or as a fire-prevention rather than a fire-fighting organization. Our work is getting done most effectively when current people problems appear to be trivial.

Third, we must educate our management that relations work does not have automatic attention-getters like orders, sales, and costs, all of which are directly related to profits. The only comparable ones we have are strikes, union elections, and perhaps open requisitions for personnel. It is during the long intervals between these dramatic episodes that the less obvious but equally important work goes on. It is during these

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relatively calm times that management must go largely on faith that relations work is worth the expense involved.

Fourth, we must get management to see that relations work often takes place within the emotional atmosphere of the master-servant relationship. This often makes it difficult to ascertain the facts, and causes us to travel down blind alleys. Management often reacts badly to such delays, pushes for action, and then dislikes living with the consequences.

Fifth, the trend toward decentralization in business is building up in all management a concept of freedom with a consequent distaste for second guessing by staff people. This philosophy is in place at the same time that those of us in relations are coming of age and spreading our wings. The only solution to this conflict is for us to become mature experts with the authority that comes from knowledge. Only then will our services be sought.

Clarifying the Relations Philosophy

Most relations people have some basic concepts relating to the handling of people in a business. But often it is found that agreement with other members of management has not been reached on these concepts. Unless there is agreement on the basic approaches of the business in the area of people, actions and practices by the relations office will run aground from time to time. This can be prevented by settling some basic questions. Here are some examples of questions that need to be answered by management before a sound relations program can be built:



1. Does your business operate on the basis of a central office that attempts to make all significant decisions, or does it attempt to decentralize decision-making as far as possible?
2. Does your business operate on the basis of rewarding service, or rewarding performance, or on some combination of both that is clear to everyone?
3. Does your business, if organized, operate on the basis of sharing responsibility with unions, or on the basis of management taking full responsibility for stewardship over the shareowner's investment?

4. Does your business, if unorganized, prefer to keep silent about unions, or does it make its own viewpoint crystal clear?
5. Does your business operate on a basis of firm adherence to rules and regulations, with clear penalties for violation, or on the basis that every situation is different and will be handled accordingly?
6. Does your business operate on the basis that human problems are delegated completely to the relations office, or are you asked only for guidance in their handling?
7. Does your business operate on the basis of its taking the responsibility for each individual's development, or on the basis that all development is self-development?
8. Does your business operate on the basis of treating everyone alike, or on the basis of status symbols for special people?
9. In paying people, does your business operate on the basis of heavy fringe benefits and relatively low wage rates, or some other combination?
10. Does your business operate on the basis that relations is a separate and distinct organization component of the business of equal managerial status with marketing, production, and finance, or does it operate on the basis of treating the personnel organization as a less important function?
11. Does your business operate on the basis of accepting responsibility for influencing the external environment, or does it feel its responsibility lies only within the plant walls?

These types of questions need to be faced in every business so that a relations program can have a sound foundation. Wavering between the extremes of these questions is often the case, with consequent inconsistencies that confuse employees as well as management itself.

Building an Action Plan

With the objective and philosophy established and the place of relations in management clearly understood, an action plan to improve profits through improved productivity is the next step. The fundamental here is to make a plan in which management at all levels actively *participates*. For illustration, take just one area — that of professional employees such as engineers:

We can make a "Relations Plan", or a list of things to be done by the managers of our professional employees, and get periodic reports from each manager on just what he has done about it.

We can make certain that every newly-hired professional employee meets the general manager within, say, one month after coming to work.

We can make every effort to have managers tell their professional employees the *reason* for a management decision, which is often as important to them as learning about the decision itself.

We can invite our professional employees to participate in the formulation of a company policy or in making an important decision.

As another ingredient of the plan we need to *demonstrate* our professed beliefs.

It is not acceptable, for example, to say that we "do what is right voluntarily" or that we "pay the community wage rate", and then fail to raise pay when our rates fall behind.

It is not acceptable to protest about unfair legislation and inept government, and then fail to participate in efforts to improve the situation.

It is not acceptable to say that we treat all employees alike, and then discipline factory employees for matters that are overlooked in the office.

In short, the success of an action plan is dependent on the underlying principles, such as participation and demonstration and consistency of application. We need to determine the *principles* on which to base the plan if the plan itself is to be successful.

The Challenge Ahead

So much for a look at the present. Let's look at the productivity challenge ahead of us in the next 5 to 10 years, and establish the role of relations people in meeting the challenge. Here are some main problems our businesses face:

1. *Trained People — the One Scarce Resource*

Trained people are becoming the one scarce resource of a business. In more and more cases the supply of qualified people, such as engineers, for example, rather than money, materials, or markets, is the real limitation in the ability to reach our tremendous growth potential. Any business plan that fails to include a personnel development program is inadequate. We are the ones to prepare it.

2. *Management People with a Long-Range Viewpoint*

The manager's job requires an ever-longer view of the business. Whereas we used to feel that preparing a budget for the coming year was a Herculean task, we now must stretch much further because most major decisions, such as planning an expansion or moving the operation, require years for fruition. How to develop management that can take the long view is a problem for the relations function to solve.

3. *Automation*

Contrary to popular thought, automation is primarily a people problem, rather than a technical problem. There will be a displacement of people, and so employees will have to be taught how to do new things. The challenge is not only in retraining, but in synchronizing the employee's ability to change with his natural resistance to change. It is our job to solve this.



4. *Cutting Labor Costs by Stabilization of Employment*

Many still try to manage the seasonal and cyclical variations of business by turning labor on and off like a faucet. But we are learning that labor costs to us will continue, whether or not employees are steadily employed. How to stabilize employment has still to be answered. It is our responsibility to get that answer.

5. *Motivation to Improve Productivity and Creativity*

We know something about motivation, but it is our job to learn much more about it. We need to design jobs so that they offer a challenge, give an opportunity to grow, and satisfy basic needs. We must find a way to stimulate and reward the truly creative individual, for he is the vital link with the future. This is our job.

6. *Individual Responsibility*

In an age of "womb-to-tomb" welfare, entrenched labor unions, and big government, we are faced with the challenge of overcoming the philosophy that "the world owes me a living" and to sell the idea of individual responsibility for a person's own development. The need is urgent for employees to understand that sales make jobs, and that each person is a salesman through the quality of his workmanship and the efforts he expends. We must do this educating.

7. *Getting More for the Communication Dollar*

Getting all parts of the business to work as a team is not solely the general manager's job. It is our

job through climate development and communications. We must do a better job of guiding the organization on what, when, and to whom to communicate, thus optimizing rather than maximizing communications.

8. *Predicting Results Rather Than Trial and Error*
Trial and error in personnel programs cannot be tolerated, because people have memories and act back. We must be able to predict accurately just what effects proposed policies and procedures will have on people before actual programs are introduced. We are the ones to do this.

9. *Long-Term Union Contracts*
Many agreements are now being negotiated for two or more years. The built-in wage increases in these contracts are really built-in cost increases—unless offset by improved productivity. In addition, such contracts are resulting in an attitude that increases are independent of productive effort. Long-term labor stability has been purchased at the price of long-term cost increases. Personnel must show the business how to offset these effects.

10. *Switch from Blue Collar to White Collar*
White collarites were less than a third of the labor force 20 years ago, but will be over 40% in 1965. In short, office workers' productivity will be increasingly in the spotlight, as compared with the factory worker whose work has long been measured. It is our job to learn how to motivate and how to measure non-repetitive workers.

11. *Measurement of Performance*
Labor costs of the future will contain a higher and higher percentage of managerial, professional, and office employees where direct output measurement is difficult. We must learn faster why people succeed—and why they fail—and pump this knowledge back into the management development and training programs. This is our responsibility.

12. *Inflation*
A recent survey showed that 4 out of 10 Americans either don't have any idea about inflation or actually believe it is beneficial. And among younger working people, there is understandably little knowledge or concern about the eroding effects of inflation on purchasing power, savings, and pensions. We should learn from the financial organization just what is happening to the productivity of our own workers in our own plants, rather than to base wage increases on some hypothetical figure like three per cent. We should educate our personnel in the economics of this problem. It is one of our most important responsibilities.

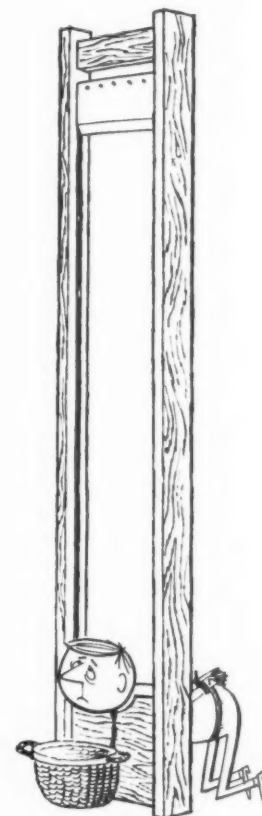
13. *Foreign Competition*
Inflation at home and economic recovery abroad have brought increasingly stiff foreign competi-

tion. Successive waves of increases in labor costs without offsetting productivity improvements are hurting our ability to compete with foreign products. These foreign products in increasing numbers are being delivered from thousands of miles away cheaper than we can produce them right here at home. Well, whose problem is it? Certainly the relations function is deeply involved.

Conclusion

In the last 10 years, many companies have pulled together under the banner of relations the many parts of the personnel job that had formerly been dispersed throughout accounting, public relations, the president's office, and manufacturing, to name a few. Relations people have been having a field day—but in the last year the situation has grown darker. The challenge is thus clear. Unless we stop concentrating all our effort on daily operating problems like serving food in the cafeteria, instituting another coffee break, or deciding what color to paint the walls, and concern ourselves instead with auditing the operation and giving advice and counsel on how to get improved productivity, we may not stay alive as we struggle for a place in the sun. If people are a business's greatest assets, then we had better get on with the job not only of guarding this "people treasury" from ill-treatment, but seeing that it is used effectively to foster the growth and profitability of the business.

Our future is in our own hands. Either we relations people will demonstrate to management the role we are able to play in contributing to profits or we will be pushed aside as people who meant well but who got in the way. ↗



Management Bookshelf

Review of

HUMAN VALUES WHERE PEOPLE WORK, by Thomas G. Spates, Harper & Brothers, N.Y.C., 1961; 256 pp., \$4.50.

This is a book about people on the payroll of any organization with a common purpose. It is a book about the sort of leadership that uses its authority to insist that all people on the payroll are treated in ways that appeal to their needs, dignity, and self-respect as individuals. It is concerned about the ways of organizing and treating people as individuals that can make them give or withhold the best that is in their hands, their heads and their hearts. This goal, the author says, is achieved through administrative intelligence, which he defines as the knowledge, the skills and the attitudes applied to help in the growth of individual personalities. The aims and purposes of administrative intelligence, the author says, are

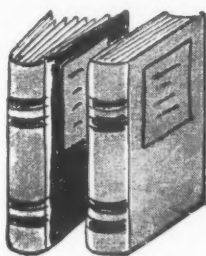
1. To satisfy not only the individual's material needs, but also his non-economic and spiritual needs.
2. To maintain mutually satisfying interpersonal relations among the members of each organizational group.
3. To achieve the proper purpose of an organization by, through, and with its people.

The author traces the contribution of the people who pioneered in putting human and spiritual values on a par with other values at places where people work. He outlines the contributions of such diverse leaders as Andrew Furuseth, Clinton Golden, Whiting Williams, Mary Parker Follet, Henry C. Metcalf, Ordway Tead, Ernest Hopkins, Elton Mayo, Walter Bingham, Colby Chester, Alex Dow, Irene DuPont, George Eastman, E. A. Filene and Henry Dennison. And running like a thread through this discussion is the contribution of the Taylor Society and S.A.M. not only to scientific management, but to establishing human values. The author shows how much American business has already achieved in making work more human and rewarding by an item-by-item comparison of how business treated its employees 45 years ago with present practices.

In a section on high morale and high productivity, the author deals with the findings of behavioral scientists "that the happy employee is not necessarily the most productive". Success or failure in attaining both high morale and high productivity, he says, is determined largely by the mental attitudes of employees towards their boss.

The author says that the development of administrative intelligence in the schools and universities is no longer the domain of any one discipline; rather, he says, it is one that requires broad intellectual interests. He, therefore, proposes the establishment of a Council on Curriculum for Administrative Intelligence made up of the leaders of these disciplines: anthropology, education, history, language, natural science, philosophy, political science, psychiatry, psychology, religion, and sociology.

This book is of special value to the serious student of personnel administration whether he be a long practitioner in the field, or one studying the subject for the first time at a



Review of

EFFECTIVE WORK MANAGEMENT, by Milon Brown, Macmillan Company, N.Y.C., 1960; 246 pp., \$5.00.

This book is a further addition to that expanding body of management literature which emphasizes what a manager actually does. In a series of chapters, he identifies the functions and processes which comprise an essential part of the professional manager's job.

For those who need to be made aware of the formal requirements of a manager's job, this book should make a useful primer on managing.

It needs to be stated that in undertaking to write such a primer, Brown set himself a task at which other more experienced writers have not always been successful. The problem, as in these other instances, is that the author has not been completely successful in relating his topics—"Planning and Making Sound Decisions," "Executive Action," "Management Control," and "Applying the Management Processes"—to the practice of management. The text, as a result, is a somewhat lengthy statement of the tenets of management.

Whereas the manager most certainly needs to be reminded of the importance of these tenets, their application is another subject.

Lament: Doers Don't Write

I suspect that one of the major reasons why there are not enough really good books on the practice of management is that those who are qualified through education and experience to relate concept, methodology, and practice are too absorbed in the game to have the desire to write. This is a serious matter. If greater advances are to be made in teaching the practices of management, its leading practitioners, as a professional obligation, have a responsibility to write and to teach.

DR. DENIS SINCLAIR PHILIPPS,
Associate Professor of Management Director, The Management Institute Division of General Education, New York University

university. The faculty member who assigns this book to his students as collateral reading will be treating them to a deeply rewarding experience. It is written in clear, lucid, easy-to-understand style. It evidences deep research and much serious thought.

JAMES J. BAMBRICK,
Assistant Manager Labor Relations, The Standard Oil Company (Ohio)

Review of

AN INTRODUCTION TO ELECTRONIC DATA PROCESSING FOR BUSINESS, by Leonard W. Hein, D. Van Nostrand, N.Y.C., 1961; 320 pp., \$9.00.

It is unfortunate that a misleading title has been chosen for this excellent book on computer programming. It has been written primarily as a college text for business students, but there are many other aspects of electronic data processing other than programming that are not covered, among them: applications, feasibility studies, organizational and personnel questions, and communications equipment.

The fact that the book deals solely with programming does not detract from its value, but it does invalidate the claim on the inside cover that "Hein has hit all of the important considerations for the business student at the basic level."

System Design Included

Furthermore, unlike many programming courses which deal only with coding, Dr. Hein has included considerable material on system design, such as flow-charting, card design, and file maintenance. A great number of topics are covered, though, of necessity, from a very elementary standpoint. The reader should be warned that while the writing of a computer program is usually not too difficult a task, the over-all design of a business application is not quite as simple as would appear from this book.

There are several approaches to teaching computer programming when a computer is not available. Some texts are based upon hypothetical equipment; Dr. Hein has chosen to teach specifically the programming of an IBM 650. The reviewer is in sympathy with this approach, since the student not only learns something about programming, but can actually program an existing machine. Although the choice of a magnetic drum computer adds the complication of an "instruction address," this is justified by the great number of IBM 650, Univac Solid-State, and other medium size systems that are now installed. Perhaps an appendix which describes briefly other types of computers would have been worthwhile.

As a text on programming, this book is recommended to the general reader as well as the college student. It is difficult to obtain an adequate appreciation of data processing without a good understanding of programming. The text is a little light on the subject of automatic programming, particularly with the importance today of COBOL, ALGOL, and other advanced techniques.

Still, One of Better Texts

Furthermore, this reviewer believes that there are advantages to teaching symbolic coding and machine coding in parallel, and would have introduced assembly systems (SOAP) in an earlier chapter. But these various criticisms are minor ones, and Dr. Hein has produced one of the better college elementary programming texts available. For the reader with no prior experience, it fills a need that is not being satisfied by the average programming manual furnished by a computer manufacturer.

JOEL M. KIBBEE,
Remington Rand UNIVAC

✓-List For Future Events

- ☐ June 25-30, 1961 Pennsylvania State University's R & D Management Development Seminar, University Park, Pa.
- ☐ June 26-29, 1961 6th Annual Conference of the National Council for Small Business Management Development, University of Delaware, Newark, Delaware
- ☐ July 31-Aug. 4 and Aug. 7-11, 1961 8th Annual Institute, American Society of Training Directors, University of Wisconsin, Madison
- ☐ Aug. 20-23, 1961 1st International Congress on Ergonomics, Federation of Swedish Industries, Stockholm
- ☐ Aug. 23-26, 1961 8th Annual International Meeting of The Institute of Management Sciences (TIMS), Brussels, Belgium
- ☐ Sept., 1961 First Indo-Pacific Management Conference, Manila (Philippines)
- ☐ Sept. 10-30, 1961 S.A.M. International Management Seminar abroad—Holland, West Germany, Switzerland, Italy, France, Belgium
- ☐ Sept. 18-23, 1961 6th Annual Midwest Work Course on Plant Layout & Facilities Planning, University of Kansas, Town House Hotel, Kansas City, Kans.
- ☐ Oct. 10-12, 1961 American Standards Association's 12th National Conference on Standards, Rice Hotel, Houston, Tex.
- ☐ Sept. 15-25, 1963 CIO's, 13th International Management Congress, N.Y.C.

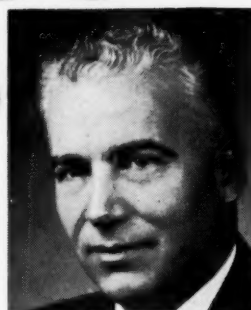
University Round-up

by Harold Fischer, President

"S.A.M. is doing more than any campus group I've belonged to." This statement was made to Dr. George Gore, faculty advisor of the University of Cincinnati Chapter, by a student volunteering for work on a committee and is typical of our chapters on many college campuses.

Dr. Gore goes on to say, "The Senior Chapter Award you described in the April issue of *ADVANCED MANAGEMENT* encourages our officers to put forth their best efforts. The students seem both responsive and genuinely appreciative of the interest of faculty and senior chapter members. It would seem selfish to sell them short during their very impressionable years because of the pressure of other activities."

The growing interest of professors and business executives in the development of our University Chapter members is illustrated further by the workshop to be held by the Indianapolis Senior Chapter for the university chapters in that area, at the



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Vice President
Edward D. Kemble



*1961-'62 International
Elected Officers
of Society
for Advancement of Management*

S.A.M. President Makes Farewell Rpt. To Governors

More Univ. Round-up

home of Vice President Carl B. Genrich, Jr., vice president of student chapters. Faculty advisors and chapter officers will meet to discuss various areas of chapter operations.

At the Annual Awards Dinner held by the Indianapolis Senior Chapter, the following received awards as the outstanding member of his chapter: Pat Gallagher, Purdue University; Dick Thompson, Indiana University; Jack Menelson, Butler University; Dick Leach, Anderson College; John Cardis, Marian College; Denny Smith, Indiana Central; and Dan Pesaresi, Saint Joseph's College.

Northeastern University Chapter has broken an S.A.M. record: Their membership drive was the first to result in more than 400 members. That makes them charter members of the S.A.M. "400 Club". Congratulations to Steve Mueller, faculty advisor, and the officers and members who worked so hard for this achievement.

This is the time of year when the student chapters pay tribute to leading business men in their areas. At the Duquesne Annual Man of the Year Award Banquet, Mr. Edward J. Hanley, president of Allegheny Ludlum Steel Corporation, was honored. The C. W. Post College Chapter paid tribute to John Carter, vice president of Fairchild Camera and Instrument Co., for his outstanding contributions in business management and community service in the Long Island area.

Hats off to Peter Quinn of Sigma Lambda Beta and the officers and members of the Loyola University Chicago—Day Division Chapter for their efforts in behalf of the Evening Div. Their enthusiasm sparked a tremendous all-out organization by Bob A. McCulla, president, and his officers. It was their hope that U. S. President John F. Kennedy would tape a short speech to be presented at their Charter Presentation ceremony; however, the following message was received from Pierre Salinger, Presidential press secretary:

"Much as he would like to do so, the President's schedule is such that it will not be possible for him to make this tape. He has asked me, however, to thank you for your kind invitation and to wish you all success with your new chapter of the Society for Advancement of Management."

Mr. E. M. Kamy will serve as faculty advisor for this active chapter.

It is enthusiasm such as this that has made this the greatest year in the history of the University Division: 189 chapters with more than 12,000 members enrolled. This interest and enthusiasm continues and is reflected, for example, in the movement now under way to establish chapters at Golden Gate College, New Haven College, and East Texas State College.

We like the University of Scranton Chapter motto: "Stick with the guys whose limit is the skies—stick with S.A.M." We like, too, their "S.A.M. Member-of-the-Month" award—it certainly provides motivation.

The regional conference sponsored by the Seton Hall University Chapter recently was one of the most successful ever held. Thirty-two colleges and universities as well as representatives from 63 companies, governmental agencies, and labor participated. More than 250 delegates, representatives, and observers, not including Seton Hall students,

participated. Congratulations to the efficient conference committee, members, and Professor Stanley P. Kosakowski for a job very well done!

It is always good to learn that S.A.M.ers are taking seriously their responsibilities to the community. The Michigan College of Mining & Technology Chapter members are certainly "learning by doing". They sponsored a community Fund Night Dance for the benefit of the United Fund. This was the first time that students at MCM&T have participated in the United Fund—another case of S.A.M. leading the way.

There has been a definite increase in the number and a significant improvement in the quality of chapter newsletters. Creative imagination and effective communication are quite evident. Here again, the Chapters are "learning by doing".

East Carolina College started a new innovation in their Newsletter — S.A.M.-OGRAM, a section called "Job Opportunities". It appears every month and gives a résumé of jobs open in industry and in teaching and the requirements needed to apply. This should prove most helpful to the members.

Many chapters have been using a new thought-provoking idea in their newsletters: "The Problem of the Month". The best solution submitted by the members appears in a subsequent issue. Also, actual arbitration cases, book reviews, and specially-prepared papers on selected management subjects by students and faculty add to the newsletter's interest and value.

Dana College Chapter reports a successful campaign among alumni and friends for funds to purchase additional business management books for the college library—a new service by a University Chapter.

In the faculty dining room of Arizona State University—at 6:30 a.m.—the personnel director of the First National Bank spoke on "Personnel Administration" to the members of the S.A.M. Chapter. In view of the early hour, motivation, no doubt, was an important topic. That's the way to move—start early and keep going.

The University of Arkansas Chapter reports sales of \$1600 during their third annual five-day book exchange. This was helpful to the students who participated and the profit from the exchange was used for special events of the chapter.

Women are playing an increasingly important part in the operations of our chapters and they are doing a great job. They are performing real service in various capacities—to mention a few and typical are: Sue West, University of Omaha, efficiency chairman; Nancy Houldcroft, San Diego State College, membership chairman; Ruth Person, executive vice president, and Phyllis Garrett, editor, New York University—School of Commerce—Evening Div.

Among our faculty advisors, valuable contributions to successful operations are being made by Sister Marie Adalbert, Santa Maria University of Puerto Rico; Professor Laura S. Wignall, University of Connecticut; and Professor Mary Lou Barr, Anderson College.

Yes, many persons all over the land have contributed substantially to another great year for the University Chapters. With the academic year waning, there has been ample demonstration throughout it that "Progress Through Enlightened Management" has been made more than a slogan.

by James E. Newsome

(to be S.A.M. Chairman of the Board, July 1, 1961)

FIRST OF ALL, it has been both a pleasure and a privilege to serve you during this important transition year of the Society's evolution into a broad-gauge management organization. The indispensable foundation for this transition has been laid by the past officers and committees working on such projects as the Advanced Management Course. I want to acknowledge with sincere thanks the devotion and teamwork of our elected and appointed officers, and our regional vice presidents, by whom this program has been carried out, both in written communications and in the Regional Chapter Officer Workshops. We have ahead of us a period in which management of all types and sizes of enterprise is beginning to realize the importance of the quality of management, and the difficulties that lie ahead in the development of enough managers to meet the enormous growth of demand which will confront us about 1965.

Building on this base and preparing for the future, the keynote of our efforts this year have been in the direction of strengthening the service rendered by headquarters to our chapters.

As a basis for this central objective, it has, of course, been necessary to carry forward and develop the second pilot stage of our Advanced Management Course; and to move forward with the reorganization of the Society and its headquarters in accord with the by-law amendments voted at the 1960 Spring and Fall meetings of this Board.

However, as has been repeatedly pointed out by Phil Carroll, the unique asset of S.A.M. is its chapter structure. Its ability to bring management philosophy, management education, and practice in management to the manager where he is, at a minimal cost in travel costs and time away from the job.

Chapter Program Assistance

As you know, this area of program operations has been under the care of Dave Wise. He has devoted so much time and effort to it I sometimes wonder when he does his work for his company.

The most spectacular, single new development is, of course, the Advanced Management Course. I feel especially fortunate that we were, during the year, able to persuade Ed Kemble to take on the vice presidency in charge of this function.

Dause Bibby, in his new post as president of Remington Rand, felt that he could no longer carry forward as chairman of the education committee; and again we were fortunate: Carl Beck, who has served on this Committee during the gestation period of the Advanced Management Course, who had been through the course himself, and who was conducting and simultaneously writing the second-year cycle this winter, was also willing to undertake the chairmanship of the committee.

Last of all in this enumeration of fortunate breaks, Frank Bradshaw has been generous in the giving of his time with Carl Beck in the planning of the second-year cycle of the Course, although he had already fully discharged his obligation to the Society in putting together the first-year cycle. As to the detail of our plans in this field, we will wait for reports from Messrs. Kemble and Beck.

Also in the area of chapter program assistance, our functional vice presidents have developed a series of bulletins in the fields of marketing, industrial engineering, industrial relations, materials handling, and material for the independent manager or owner-manager. You will recognize these as the work of Al Seares, Jake Sizelove, Sam Burk, Warren King, and Percy Ekholm. Each bulletin suggests types of programs, or specific programs that the chapters can utilize.

We have been developing assistance to the chapters in obtaining speakers. Periodic bulletins indicate the travel plans of officers of the Society, and of outstanding management speakers, where they have been able and willing to give us an advance itinerary. We feel that we must leave it up to the chapter to make the specific contact because headquarters cannot know the needs of all chapters at any given moment.

We have also been exploring the idea of workshop circuits by professional leaders of workshops on management subjects. Each could give his program for three or more chapters sequentially, allowing them to share the travel, printing and postage costs through co-ordination and help furnished by headquarters.

Recommendations

In this area, as in the other four that I want to review, I see some possibilities ahead that I would like to leave with you for further consideration. First of all, if these circuit workshops prove the advantages that appear on paper, they may be a real contribution to the programming of the chapters.

Secondly, we feel that it may be desirable to eliminate the Fall Conference in New York. I believe we could more profitably put the same effort on three or four regional conferences per year, scheduled at the time and place where our Board of Directors meet. This would be a matter of collaborative planning and execution between the regions and our New York office.

Also, we see the possibility that there may be other programs better fitted to regional sponsorship than to the individual chapter. For example, the five-day psychological sensitivity workshop, has proved a heavy burden for a single chapter but has yielded excellent results. I believe that several chapters in a region, co-operating in an effective organizational structure, could render a real service by sponsoring this type of activity.

Lastly, we see the possibility of small packages, or units, of management research, which can be effectively undertaken by the senior chapters alone, or in co-operation with a university chapter in the same area. These would fit together, like the parts in a puzzle, to constitute effective contributions to management research. Here we are indebted to Professor John Mee, who has been studying this problem and laying the groundwork for a program.

Membership

Under the leadership of Hugo Druehl as Vice President for Membership, we have made a number of significant moves during the year. The most visible is, of course, the new membership booklet, which emphasizes the strong points of S.A.M., the chapter structure, university connections, and testimonials by well-known S.A.M. members.

We have also moved, as part of the reorganization mentioned above, to establish a new function — that of chapter service director.

We have recently completed an analysis

of membership of 41 chapters in terms of the management responsibilities carried by the member. The questionnaire on this subject evoked more response and interest than anything that has been sent out from headquarters in a long time. You will hear from Hugo Druehl some of the results. This will furnish us background for further development of specific methods of membership development and maintenance. We can focus on quality of membership—the dynamics of interchange of viewpoints and knowledge among the members — rather than upon mere numbers.

Also, we have been making changes in the handling of membership matters at headquarters. These are designed to eliminate or minimize sources of friction and delay which have caused annoyance to applicants and to chapter membership officers.

A third area of effort has been the development of membership history charts for each of the chapters. We believe that by knowing its own history, a chapter is better equipped to deal with its problems. Likewise, regional vice presidents and international officers have a more prompt and graphic notice of danger in the case of a faltering chapter, as well as a basis for analyzing the causes of success in the vigorous chapters.

Recommendations

We have not yet been able to meet all the needs we see directly ahead. However, we have laid the groundwork for several moves. Most importantly, a specific program is needed for co-operative action between headquarters and a chapter that wishes to build its membership. It should utilize the prestige of a national organization in combination with the local touch and well-known local names.

Also, it is obvious arithmetic that erosion of membership is an important area for study. Losses have exceeded gains during the past three years. Only a few chapters make effective efforts to be sure that a new member is getting what he wants out of membership, and to ascertain the reasons for resignations and drops. We have no adequate information on a nationwide basis.

Perhaps the most important task ahead of us in the membership area is better public relations: building the image of S.A.M. as a broad-gauge management organization. This means better publicity, both at the chapter and international level. Again we have laid the groundwork, but with personnel changes in the publications department at headquarters, we have not had the man-hours available to do an effective job. We believe, for example, that we are now set up to publicize adequately the new chapter officers you are electing this Spring. If possible please complete your elections before May 1st, so that publicity in trade and professional journals can be sent out and utilized before the summer doldrums.

Already, under the leadership of Hezz Stringfield, we have put new emphasis on the various awards available through S.A.M. There are several national and international awards for which the chapters may make nominations. Also there are Professional Manager Awards, and Advancement of Management Awards which may be given by each chapter. Both are important in terms of membership development. Only a small proportion of our chapters are utilizing these opportunities to obtain visibility and stature in the community, yet the only cost to the chapter is the energy to select a man and go through the necessary motions. Your present officers strongly recommend this as an area for added emphasis and action.

Liaison with University Chapters

As we all know, Harold Fischer's energy and genius have resulted in the development of a phenomenal number of new chapters in recent years and the flow has continued this year with 7 new chapters since September. This brings with it a problem; namely, that the number of university chapters is now so great that no one man, even with Harold's energy, could hope to keep in personal touch with all of them. Certainly it is a burden that we should not expect him to carry following his recent illness.

Fortunately, a good solution lies at hand. In several regions, the regional vice president has made a point of bringing representatives of the student chapters into the Regional Chapter Office Workshop. Many of our chapters have established active liaison with student chapters in their neighborhood. This is by no means universal, but it points the way.

As a first move, in our current S.A.M. descriptive pamphlet, the university chapters are, for the first time, listed jointly with the senior chapters.

We also emphasize in that booklet, that active liaison not only gives the senior chapter an opportunity for service in improving the quality of business education in the colleges of its community, but is actually one of the most effective recruiting channels that could be imagined. It brings chapter members into contact with the cream of the crop of graduating students on a continuing working basis—a far better opportunity for mutual appraisals than a single recruiting interview.

Recommendations

Vigorous efforts on the part of our Regional Vice Presidents to strengthen the structure seem to have many advantages and no visible disadvantages. In this connection it might be well to raise the question for study as to whether the regional organization should include a university division coordinator, or vice president.

Organization and Structure

As you all know, Bob Curry has developed for our international organization, an organization manual. In it he has emphasized certain basic principles of organization developed in corporate management and equally applicable to the Society.

Walter Mitchell has been reorganizing our Headquarters in such a manner as to provide definite and continuing responsibilities for functions in packages that tie directly to the functional areas represented by the elected officers.

In the Chapter Officer Workshops, we find that some of these same principles can be applied effectively at the chapter level. Some of our strongest chapters, those with a continuous history of growth, and good breadth of program, are almost invariably those which have a sound organizational structure.

This means provision for a line of succession—someone who takes over in the absence of the president (the lack of this was a major cause of the disaster that overtook one chapter this year). We are emphasizing in the Chapter Officer Workshop, continuity of committees, so that men with experience in a function are available to take over the responsibility, and so that the work can be divided into small enough packages to avoid the fatigue factor. We have seen chapters perform like skyrockets in one year, and fall flat the next year because the major part of the work was done by two

three stalwart officers, who later lost interest or moved away.

Recommendations

The foundation has been laid this year for more effective co-operation with other management groups, both at the national and chapter level, in the new Federation of Management Organizations. The directory of chapters of all such organizations, grouped city by city, is now in preparation and represents the co-operation of more than 20 groups. We believe this can profitably enter into the planning of programs by our chapters for the coming season.

The development of a top management advisory council to help the chapter officers in evaluating past performance and planning the future, has proved successful in the few chapters that picked it up this year. We feel it is a highly desirable device for broader use in the coming season.

Finally, a more effective regional organization structure may be useful—especially in those regions where the chapters are close enough together to attempt profitably the development of regional program activities.

Evaluation

We are indebted to Hezz Stringfield and Jeep McCurry, with their fellow committee members, for a fundamental study of the chapter evaluation problem. They have looked at this Society's objectives, and management's function of evaluation, in a much broader context than competition for a trophy.

You will hear more from them in the debate on the proposal scheduled on this agenda, but the plan appeals to me in one very important respect. We have encouraged our younger managers at Johnson & Johnson to join S.A.M. because we feel that the practice in management—the simulation of management—that comes with active participation in chapter operations is a great training ground. A man learns how to get something done with the aid of employees whom he cannot hire, fire, or discipline. The mistakes he fakes cost less than they would in our company. Our current effort to make the evaluation function simulate the problems of management in an enterprise, seems to me in line with the objectives of the Society and the needs of our members.

For example, the fact that the committee proposes to evaluate some phases of chapter operations monthly and others annually is in accord with the fact that we do not evaluate everything in our company operations on the same frequency basis. The proposal for qualitative evaluation—admittedly more vague and difficult than quantitative scoring—accords with the fact that we cannot evaluate managers, department heads, or any really responsible position above supervisory level, on a purely quantitative basis. This is true if for no other reason than the fact that conceptual skill and creative thinking are not subject to quantitative measurement. If we are picturing ourselves as a management organization, I suspect we must face the problems of managers even when they are less concrete and satisfying than the point-score procedure we have had in the past.

As a means of overcoming the hazards of this qualitative evaluation, I like the committee's recommendation of a panel or group of past presidents of the chapter to do the evaluation. In my own experience, such officers—and even the present officers of a chapter—are more severe in their qualitative evaluation of their local efforts than an

outsider would be, perhaps because they know what went wrong.

Advanced Management Magazine

In addition to this basic area of chapter support, we have, of course, had to carry on the customary functions of your headquarters. The magazine faced a difficult period while we were making the transition to a new director of education and research. He had to devote his entire efforts in the late summer and fall to the launching of the Advanced Management Course. Again we were fortunate that through the good auspices of Dause Bibby, we were able to borrow part of the time of Henry Singer of the Remington Rand organization. He acted as our managing editor for nine months, finishing with the March issue, at which time the company that pays his salary seemed to want to have him back on the job full time.

We had difficulties entailed by loss of our publications manager to a better-financed organization last summer, and added difficulties in finding a competent replacement within the limits of our budget. Fortunately, we have this work in the magazine well staffed at present. They are rapidly catching up with a back-log of manuscript-selection and production problems.

Many of our members have been kind enough to note the changes in the magazine: a more professional layout, maintenance of the high quality of articles, development of an occasional special interest issue focused on a timely subject, restoration of a senior chapter news column, and restoration of the book reviews feature.

Recommendations

Ahead of us lie many tasks. It has not yet been possible to apply adequate time and effort to the sale of advertising space, but a number of experiments are ready for launching. Additional editorial features of a continuity nature—appearing every month, or at regular intervals—are under consideration.

Most important of all, Bob Curry and a special task force, including two of our members with wide and successful experience in the business publishing field, have been exploring a proposal . . . the details of which we will hear from Mr. Curry.

A.S.M.E.-S.A.M. Conference

Last fall, I met with representatives of A.S.M.E. regarding a plan to develop this annual Spring Conference on a broader base, with more active participation by A.S.M.E., in order to bring a larger attendance from among their members and in return extend financial participation in the conference proportionate with their attendance. We believe this can be beneficial to both Societies, both in terms of the service rendered to the members and financially. Parts of it take effect now and part with next year's conference.

International Developments and Golden Anniversary

We were fortunate in persuading Gene Bengt to undertake the chairmanship of an *ad hoc* effort, the planning of S.A.M.'s Golden Anniversary in 1962, and our participating in the International Management Congress scheduled in New York in 1963. This has, by a natural process of osmosis, broadened into an effort to crystallize our policy with respect to chartering chapters outside of North America, and the granting of permission to translate articles from

ADVANCED MANAGEMENT and other S.A.M. materials into foreign languages.

Based on a suggestion by Henry Singer and the good offices of the Council for International Progress in Management, a chartered airplane tour of the European Common Market is scheduled in September for S.A.M. members. All of us, directly or indirectly, are affected by the growing competition of industries outside the United States, especially Western Europe. The most rapidly developing threat will undoubtedly be the Common Market countries. The abolition of tariff barriers and other obstacles to trade within a market of 180 million people, will probably cause, within the next few years, a development of mass production and mass marketing in Europe as spectacular as that which occurred in the past 40 years in the United States. But it will probably progress faster. The production economies which this will yield, combined with their lower wage rates, constitute a challenge to management in this country such as we have never faced before.

Financial

Despite the best efforts of our Treasurer, Gordon Campbell, we are faced with a financial situation which is not happy. The loss of members, which has prevailed since 1958, has been slowed but not stopped this year. Our expenditures—especially for travel of Governors and Directors, and in the development of the Advanced Management Course—were in excess of the budget. Conversely, our membership income was below budget forecast. Further discussion of this will be given by Mr. Campbell in his presentation of the budget. As you will also hear from him, we have made some progress toward a cash flow forecast procedure that will permit better control of our investments and consequent better control of our income from idle and reserve funds. We have established, as a civil defense precaution, a storage of duplicate membership lists outside New York and the transfer of a savings bank deposit outside New York. Thus, operations of the Society could be restored with reasonable promptness in the event that our headquarters were made untenable.

Recommendations

We lost, during the year, one very able and experienced staff member, Pat Reddington, primarily because we have no pension plan or other related security aspects as part of our compensation of headquarters staff. This inducement was offered by another association. To an increasing degree we will find ourselves at a disadvantage if this is not corrected. We are currently getting ready to apply for a change in status under the Internal Revenue law. As an educational organization—which we certainly are, but the privileges of which we do not now enjoy—we could allow key employees to set aside up to 20% of their salaries in a savings trust, or pension fund, not taxable to the individual. This, of course, would be less favorable than the generous pension plans offered by many corporations and associations, but would certainly be better than no provision at all.

Fundamentally, there is nothing the matter with our budget that additional membership could not cure, and we hope that some of the moves outlined above will result in a reversal of the unfavorable trend.

Again let me thank all of you for your support, your prompt response to inquiries and requests for help, your patience with our shortcomings and your approval of the constructive moves.

Modern Management Treatises

Scientific Management of Marketing Operationsby Al N. Seares

In this book, Al N. Seares demonstrates that scientific management of the marketing function (a function rooted primarily in the inexact social sciences) is necessary, profitable and feasible; that it can be carried out, under trained leadership as an aid rather than a detriment to creativity.

Financial Approach to Industrial Operations.....by Alvin Brown

Although problems of financial management are the immediate responsibility of financial executives, the author of this treatise points out these problems are nevertheless the concern of everyone in a business organization. He shows how the function of financial analysis may facilitate the solution of managerial problems generally.

Cost Control Through Electronic Data Processing.....by Phil Carroll

Today, management at every level can obtain facts from an integrated data communications network that can report rapidly on the basic operation of every department of an organization. In this book, "Mr. Cost Control" sets forth some of the bench marks that must be considered to materialize the inter-relationship of measurable data which contribute to sound management decisions.

Suggestion Plan Guide.....by the Reading (Pa.) Chapter, S.A.M.

Like any other management institution, a suggestion system must have realistic objectives, sound policies, workable procedures and criteria by which its effectiveness can be gauged. This reference work hews to such a framework in presenting basic standards for the newly installed or remodeled suggestion system.

The "Results" Approach to Organization.....by Edward C. Schleh

The "other side" of some commonly accepted viewpoints on management authority and responsibility are sought out in this book. In accenting accountability for results rather than exercise of activities, Mr. Schleh examines "line vs. staff", considers the problem of work improvement at all levels on the basis of "balanced" and "blended" effort, and proposes a principle of "results of optimity" in reference to over-success of one activity at the expense of others in the total enterprise.

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